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"Diamond Quality"

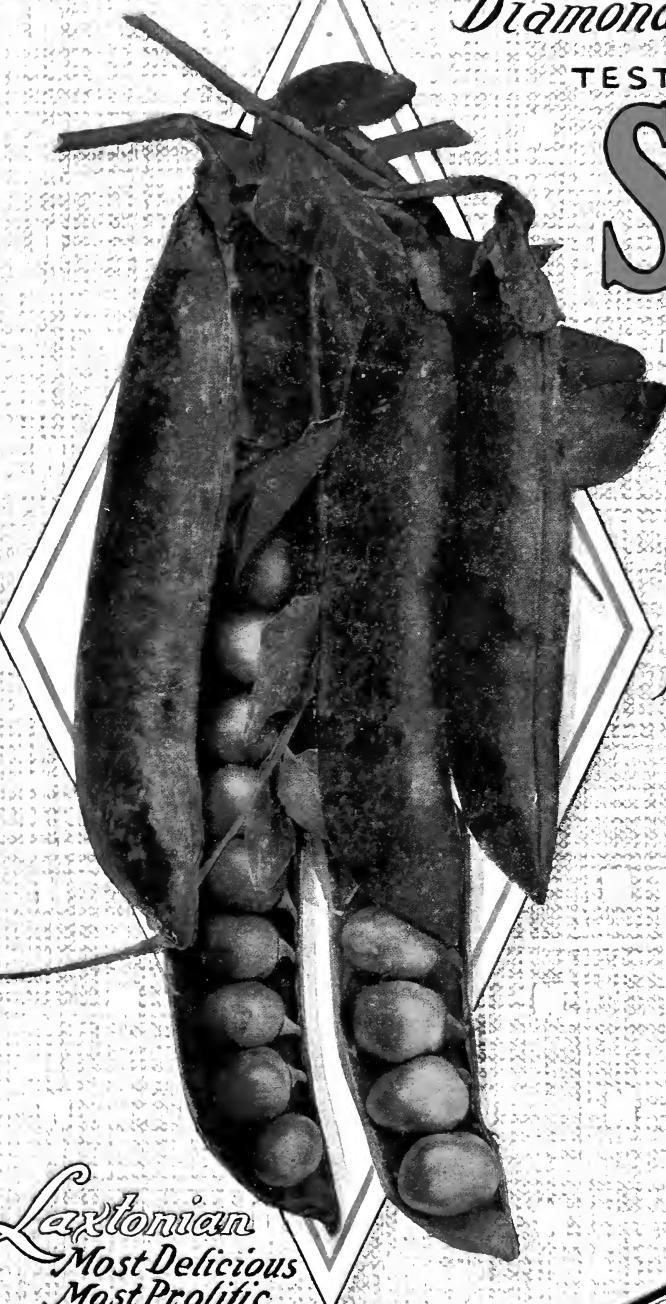
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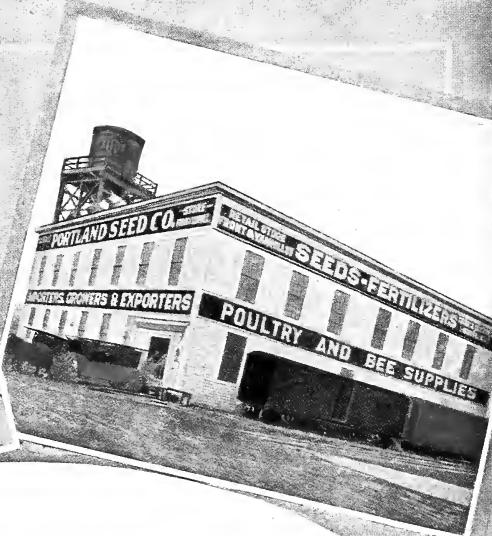
SEEDS

Annual Catalog

1917

Laxtonian
Most Delicious
Most Prolific
and Largest of all
Early Dwarf Peas





SERVICE—In our various departments from fifty to one hundred competent men and women are actively engaged in serving our customers. Among these are practical experts, specially fitted by training and experience to confer with you on any subject pertaining to our business. Their suggestions or recommendations incur no obligation on your part and may save you needless expense and disappointment. *You should take advantage of this service.*

WHAT OUR DIAMOND TRADE MARK STANDS FOR. By reason of our business standing and the experience gained by a quarter century of success in serving the growers of the Northwest, we have established trade relations with the world's best producers and sources of supply. Only by such connections is it possible, in the seed trade, to obtain the select true stocks—the best of the season's production; and when you see our DIAMOND Trade Mark on your packet of seeds or item of merchandise you can feel that it is a mark of real quality—*THE BEST OBTAINABLE.*

OWNING OUR GROUNDS AND BUILDINGS in the business center of Portland—with our house tracks easily accessible to all railroads—places us in the most advantageous position to render prompt, efficient and economical service.



PORLAND, OREGON

Portland Seed Company's COMPLETE SEED ANNUAL



For
1917

BIG RETURNS TO GROWERS are indicated for 1917 owing to the shortage and high prices of food supplies in the world's markets, and every available bit of ground should be planted to a marketable crop, or one that will be useful in keeping up the home supply and reducing living expenses.

VARIETIES: No changes of importance have been made as we do not speculate in novelties but grow and list only varieties that we believe satisfactory and profitable in our territory.

OREGON GROWN SEEDS AND PLANTS of our own introduction and grown under our supervision have stood the test of open competition in the Coast markets, and are standards of excellence wherever known. Our Seed Potatoes won high honors at the Panama Fair, the best acre yield for the State of California. Shadeland Oats also won a special medal and diploma. Our Broccoli has proven so valuable that a big industry has been developed, specializing on its production here in Oregon. Our New Oregon Strawberry is in such favor by big commercial growers on the Coast that we are unable to supply the demand for plants. Golden West Corn, Oregon Yellow Danvers Onion, Riverside Giant Rhubarb and Oregon Pole Lima Beans are other big successes.

THE HOME GARDEN: Be sure to plant a home garden, even a small space rotated will produce an astonishing supply of delicious, fresh vegetables of a quality that you can seldom buy, and will reduce your living expenses. The care of your home garden, whether it be vegetable or flower, will prove a healthful and profitable diversion.

GOOD SEEDS, SQUARE DEALING, RIGHT PRICES and a willingness to anticipate the demands of our trade have developed our present splendid facilities and equipment, and it will be our earnest endeavor to serve you to your satisfaction.

Portland Seed Company

WHEN AND HOW TO ORDER

SEND in your combined orders for seeds, plants, supplies, etc., at once. We are prepared to fill orders as soon as this Catalog reaches you, and if you do not want all sent now we will send part now and the balance later. The advantage of this is that your order is entered and filed or stock reserved so the complete order, or any part, can be sent upon notice without delay. If you want part or all of your order held, state it distinctly with date when shipment is to be made. All orders for potatoes, plants, and other perishable goods are carefully booked on receipt, and filled in rotation as soon as weather permits. If shipped early, they are at buyer's risk.

USE OUR ORDER BLANKS.—Fill out the spaces giving postoffice and shipping point. It is best not to write letters on the same sheet as your order. **Do not forget to sign your name.**

SEEDS BY MAIL are postpaid in lots of one pound or less of a variety—unless otherwise stated. See parcel post rates for larger lots.

LARGE ORDERS.—Any dealer, market gardener, institution or individual wishing seed in large quantities, is requested to mail us a list of what is wanted, and we will promptly return it with the very lowest market prices. A letter of Inquiry may save you dollars if you want to buy in quantity.

USE MONEY-ORDERS, POSTOFFICE OR EXPRESS, Bank Drafts or Registered Letters.
DO NOT send personal checks, as your order may be delayed for their collection or identification. Stamps will be accepted on small orders.

BE SURE TO ORDER EARLY—BEFORE STOCKS ARE DEPLETED.

NOTE.—We use every precaution in procuring fresh, pure and reliable seeds, etc., but we, in common with other responsible seed houses, sell our goods subject to the following disclaimer, it being that adopted by the American Seed Trade Association, i. e.:—We give no warranty, express or implied, as to description, quality, productiveness or any other matter of any seeds, bulbs, nursery stock, roots or plants sent out and will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms they are to be returned at once.—Portland Seed Company



*Diamond
Quality*

VEGETABLE SEEDS

DIAMOND QUALITY SEEDS are grown especially for us from selected strains, varieties that years of trial have proven to be most satisfactory for home and market gardens. Many of our seed crops are grown under our personal supervision—others come from the world's great centers of seed production of Europe and America where conditions are most favorable for their perfect development.



General Notes on Planting and Culture

WE have marked those varieties that mature early with this little Diamond, —our trade-mark. This will aid you in the selections for your home garden.

If you live in Northwestern Oregon or Washington you will have better success with your garden by planting these early maturing varieties after the Spring weather is settled and the ground warm, than if you planted very early, as many seeds will not give the best results in the cold damp of the early Spring, and even if they live, the plants may be stunted and not grow. These suggestions are only general, as you will note that many special sorts can be planted very early.

If you live in the Willamette Valley or Southern Oregon you can plant almost anything as early as the condition of the soil will permit.

Do not work the soil when it is wet, as this has a tendency to make it lump and bake and may put it in such shape that nothing can thrive in it. Wait until it is just dry enough to crumble away nicely when turned over, and if you will press the dirt firmly down on the seeds, getting right in the row and tramping the soil down with your feet—they will germinate quickly even in comparatively dry soil. Any extra work in carefully preparing the soil will more than repay you in the increased results, and always remember that constant and thorough cultivation is almost equal to water and fertilizer both, and will insure a good crop even in a dry season, and on ordinary soil.

New land must be thoroughly broken up and cultivated in order to kill out the wild nature, as new ground in the wooded sections of the Pacific Coast rarely produces bountiful crops the first few seasons without careful culture, fertilizing and rotation.

It pays to fertilize and cultivate to supply ready plant foods to the growing crops, as many years of accumulation of Fir and Pine needles will sour the ground, and until they rot and decay are detrimental to crop growth, but if properly worked and fertilized, good and profitable crops can be harvested from the beginning.

Plan your plantings and keep a garden book or record of some sort, for by so doing you will get the utmost pleasure and profit from your garden and as the seasons pass you will find this record an invaluable aid and reference work. For if you keep a record you will soon learn what varieties are best for your requirements and to know your favorites, and when buying seeds or plants you will know just what to order.

If you are in doubt about what you should do, or want any special information, be sure to write to us. We will be pleased to give your inquiries our careful attention, and advise you to the full extent of our knowledge.

BOOKS—AN UP-TO-DATE REFERENCE BOOK will save the beginner many times its cost and will suggest improved methods to the experienced. SEE LIST OF STANDARD REFERENCE AND TEXT BOOKS.

Diamond Quality Seeds

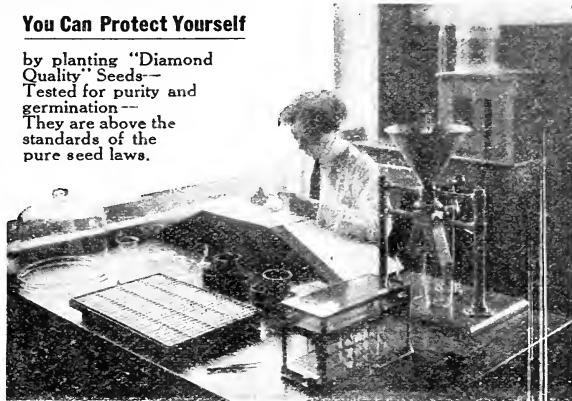
are Tested Seeds

TO further guard the interests of our customers and maintain our standard of excellence, we have installed a modern seed laboratory, equipped as recommended by the U. S. Dept. of Agriculture, placing in charge a certified seed analyst. It is here that final tests and inspections are made, and only those seeds that are above the standards are offered to the public, and bear our Diamond Trade Mark—the mark of quality that stamps them as the best obtainable.

 We are the only Seed Company maintaining a seed laboratory in Oregon.

You Can Protect Yourself

by planting "Diamond Quality" Seeds—
Tested for purity and germination—
They are above the standards of the pure seed laws.



REFERENCE TABLES

Quantity of Seeds to produce a given number of plants and to sow an acre

	Quantity per acre.		Quantity per acre.		Quantity per acre.
Artichoke, 1 oz. to 500 plants.	6 oz.	Grass—Cont'd.		Vetches	1 1/2 to 2 bu.
Artichokes—White French . . .	8 bu.	Red Top, solid seed . . .	10 to 15 lbs.	With grain	1 bu.
Asparagus, 1 oz. to 800 plants.	1 lb.	Timothy	10 to 15 lbs.	Wheat	1 1/2 to 2 bu.
Asparagus Roots	7500	Orchard, Pérennial Rye. 1 to 2 bu.			
Barley	2 to 2 1/2 bu.	Wood Meadow	1 bu.		
Beans, dwarf, 1 lb. to 100 ft. of drill	1 bu.	Horseradish Roots	15,000 to 25,000		
Pole, 1 lb. to 100 hills	1/2 bu.	Kale, 1 oz. to 2,000 plants	4 oz.	WEIGHTS OF VARIOUS ARTICLES	
Beet, Garden, 1 oz. to 100 ft. drill	6 to 7 lbs.	Kaflir Corn, in drills	6 to 10 lbs.	Per bushel	
Mangel, 1 oz. to 100 ft. of drill	5 lbs.	Kohl Rabi, 1 oz. to 2,000 plants	4 oz.	Artichokes	60 lbs.
Broccoli, 1 oz. to 2,000 plants	4 oz.	Leek, 1 oz. to 100 ft. of drill	4 lbs.	Barley	48 lbs.
Brussel Sprouts, 1 oz. to 2000 plants	4 oz.	Lettuce, 1 oz. to 150 ft. drill	3 lbs.	Beans	60 lbs.
Celery, 1 oz. to 5,000 plants	4 oz.	Mushroom, Spawn, 1 brick to 10 sq. ft.		Buckwheat	48 lbs.
Cheat	2 bu.	Millet—For Seed	20 lbs.	Blue Grass	
Chicory	4 lbs.	For Hay	30 lbs.	Kentucky	14 lbs.
Clover, Aisike and White, 8 to 10 lbs. Alfalfa	15 to 20 lbs.	Melon, Musk, 2 oz. to 100 hills	2 to 3 lbs.	English	24 lbs.
Crimson Trefoil	10 to 15 lbs.	Water, 4 oz. to 100 hills. 3 to 4 lbs.		Canary Seed	60 lbs.
Red	10 to 15 lbs.	Oats	2 to 3 bu.	Cheat	34 lbs.
Collards, 1 oz. to 2,000 plants	4 oz.	Okra, 1 oz. to 100 ft. of drill	8 lbs.	Clover Seed	60 lbs.
Corn, Pop (shelled)	8 to 10 lbs.	Onion Seed, for sets	60 to 85 lbs.	Corn, Shelled	56 lbs.
Sweet or Field, hills	12 to 15 lbs.	1 oz. to 150 ft. drill	3 to 4 lbs.	Charcoal	22 lbs.
For soiling drills	3 bu.	Peas, Field	2 bu.	Emmer	40 lbs.
Cress, 1/4 oz. to 100 ft. drill	1 lb.	Garden, 1 lb. to 100 ft. drill	1 to 2 bu.	Flax Seed	56 lbs.
Cucumber, 1 oz. to 100 hills. 2 to 3 lbs.		Pepper, 1 oz. to 1,000 plants	2 lbs.	Grass Seeds (unless otherwise stated)	14 lbs.
Egg Plant, 1 oz. to 2,000 plants	4 oz.	Potatoes	10 bu.	Hemp Seed	44 lbs.
Emmer	100 lbs.	Pumpkin, 1/2 lb. to 100 hills. 3 to 5 lbs.		Hungarian Millet	48 lbs.
Endive, 1/4 oz. to 100 ft. drill	4 lbs.	Radish, 1 oz. to 100 ft. drill	10 lbs.	Lawn Grass	20 lbs.
Flax, broadcast	1/4 bu.	Rape	3 to 5 lbs.	Meadow Fescue	24 lbs.
Grass—Kentucky Blue, for pasture	1 to 2 bu.	Rye	1 1/2 to 2 bu.	Millet	50 lbs.
Kentucky Blue for lawns	100 lbs.	Salsify, 1 oz. to 100 ft. drill	6 to 8 lbs.	Oats	32 lbs.
Meadow Fescue	1 bu.	Spinach, 1 oz. to 100 ft. drill	8 to 10 lbs.	Onion Sets	32 lbs.
Mixed Lawn	5 to 6 bu.	drill	8 to 10 lbs.	Orchard Grass	14 lbs.
Red Top, Chaff	1 to 2 bu.	Sugar Cane, in drills	10 lbs.	Peach Pits	48 lbs.
		Sunflower	8 lbs.	Peas, Smooth	60 lbs.
		Squash—Summer, 4 oz. to 100 hills	3 lbs.	Peas, Wrinkled	56 lbs.
		Winter, 8 oz. to 100 hills	4 lbs.	Perennial Rye	20 lbs.
		Tomato, 1 oz. to 2,000 plants	4 oz.	Potatoes	60 lbs.
		Tobacco, 1 oz. to 4,000 plants	3 oz.	Rape	60 lbs.
		Turnip, 1 oz. to 150 ft. drill	2 to 3 lbs.	Rye	56 lbs.
		Vetches	70 lbs.	Red Top	14 lbs.
				Red Top, Solid Seed	42 lbs.
				Timothy	45 lbs.
				Vetches	70 lbs.
				Wheat	60 lbs.

 DIAMOND FERTILIZERS will restore and sustain the productiveness of your soil. They are an INVESTMENT. NOT an EXPENSE. and will RETURN MANY TIMES THEIR COST

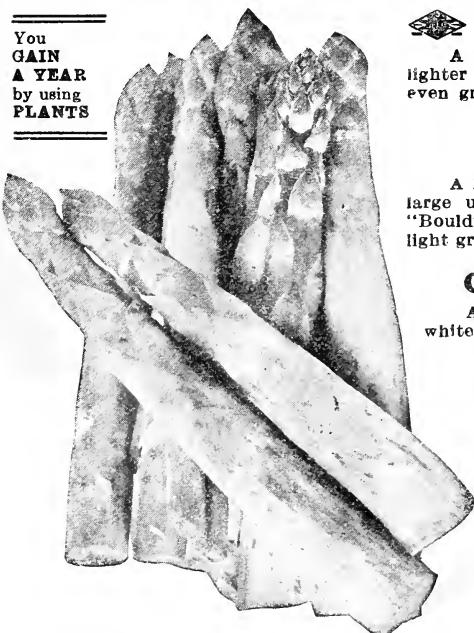


ASPARAGUS

Asparagus is one of the earliest Spring vegetables, and would be in universal use were it not for the mistaken idea that it is difficult to grow. In reality it can be produced very easily and cheaply and is a profitable market crop. A bed 15x50 feet, requiring about 100 plants, should give an abundant supply for the average family.

CULTURE.—Soak the seeds 24 hours in warm water, and sow early in drills one foot apart. An ounce of seed will sow about 300 feet of drill. Keep the soil mellow and free from weeds. After one year's growth, transplant into permanent beds that have been carefully prepared by working to a depth of 24 inches, manuring deeply, using old manure and bone meal; 5 feet is a convenient width for a bed that will carry three rows, and can be reached without treading upon it. Set the plants about 18 inches apart in the rows and spread the roots out, firming the soil down on them. If your soil is well drained the bed may be level, but if not it must be elevated a little. Give a good dressing of well rotted manure after planting and an occasional application of salt or brine. In the Fall when the foliage turns yellow, cut it off and give a dressing of manure or good commercial fertilizer. A warm, sandy soil is the best, and one which has for some years been cultivated in garden crops and heavily manured is greatly preferred to a fresh soil. But at no period of its growth should the asparagus crop be allowed to lack for manuring. From one to two years' time can be saved by buying roots of us. See plant department 7260 roots will plant an acre.

You
GAIN
A YEAR
by using
PLANTS



Argenteuil

A popular French asparagus of great merit; larger and lighter in color and said to be superior to Palmetto; of vigorous, even growth; very early and free from disease.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 35c; 1b., \$1.00

Conover's Colossal

A large and rapid grower of excellent quality. Makes large uniform stalks of finest quality. This is the famous "Bouldin Island" Asparagus, a superior canning variety, color light green.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; 1b., 85c

Columbian Mammoth White

A newer, distinct and valuable variety. The stalks are white, of the largest size; very productive and early.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; 1b., 85c

Palmetto

The favorite green asparagus. Extra early and the uniformly large stalks remain tender longer than other varieties, being in prime condition for some days after coming above the ground. Palmetto is disease resistant, and a heavy, sure cropper.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; 1b., 85c

DIAMOND FRUIT FERTILIZER for ASPARAGUS

Ask for Our Free Booklet "Fertilizers"

ASPARAGUS PLANTS—Four Best Varieties as Above

ONE-YEAR-OLD PLANTS—Postpaid, 25c per dozen, 75c per 50, \$1.00 per 100. By express or freight, 20c dozen, 50c per 50, 75c per 100, \$6.00 per 1,000.

TWO-YEAR-OLD PLANTS—Postpaid, 40c per dozen, \$1.00 per 50, \$1.50 per 100. By express or freight, 25c per dozen, 75c per 50, \$1.00 per 100, \$8.00 per 1,000.

Artichoke Large Green Globe

The variety used as a table vegetable. The edible portion is the thick end of leaf of the flower head. Sow early in drills and when about ten inches high transplant into rows four feet apart each way. It will produce only a small crop the first year, but will continue in good bearing five years. Cut before the bud opens. The seedlings are variable and for market gardening they are generally propagated from cuttings.

The buds when in blossom resemble huge thistles and the foliage being highly ornamental, this variety is much used for hedges and display in parkings.

Pkt., 5c; oz., 50c

Artichoke Jerusalem.—White.

Distinct from the Globe, belongs to the Sun-flower family. Produces tubers like potato; grown in the same way. A fine vegetable for table and also valuable as hog feed. Price and description under Field Seeds.



Globe
Artichoke

BEANS

We offer the following varieties as being best for our western condition as they have given the largest average yield and are most desirable and profitable for home or market gardens.

CULTURE.—The soil best adapted for growing beans is a light, rich, well-drained loam, which was well manured for the previous crop. If the ground is too freshly manured the plants are apt to run to vines and set few blossoms. Plant in drills about two inches deep and from eighteen inches to two feet apart, as soon as the ground is dry enough and warm—about May 1st, or later, and for succession up to July 15th. Beans are very sensitive to cold and wet before they have sprouted, but are not so liable to be damaged after they are above ground.

Plant about 1 lb. of Dwarf or Bush Beans to 100 ft. of drill, 1 bushel per acre. Pole Beans—1 lb. to 100 hills, requiring about $\frac{1}{2}$ bushel per acre. When planted in hills, $2\frac{1}{2}$ to 3 ft. apart, small varieties such as "Navy" and "Lady Washington" will require from 16 to 25 lbs. per acre; larger sorts running from 25 to 30 lbs. Owing to their short season of growth, from 60 to 80 days, beans generally make a profitable crop for trucking. After harvesting the beans, always plow the vines under to fertilize the soil.

 For single lbs. by mail add 10c postage. Larger lots at parcel post rates.

Wax or Yellow Podded Kinds

DWARF OR BUSH VARIETIES

Pencil Pod Black Wax

"Pencil Pod" is the most satisfactory of the early dwarf Wax Beans.

Of dwarf, bushy growth, about fifteen inches high, large, luxuriant foliage, beneath which in great clusters will be found an enormous crop of beautiful straight yellow pods six to seven inches long, well rounded, deeply "saddle backed," meaty and solid clear through; they are brittle, of rich mild flavor, and entirely stringless. An early sure cropper; of the finest quality.

Pkt., 10c; lb., 30c; 10 lbs., \$2.50

Golden Wax

Very hardy and productive. A good second early variety of fine quality, but should be picked young to avoid strings.

Pkt., 10c; lb., 30c; 10 lbs., \$2.50

Davis Wax

Rustless and immensely productive, very hardy and one of the best for market gardeners. The dried bean is kidney-shaped, clear white, and a favorite for baking and canning.

Pkt., 10c; lb., 30c; 10 lbs., \$2.50

Wardwell's Kidney Wax

Vines are of medium size, with long, flat pods of a delicate, waxy yellow, very brittle and entirely stringless when young. A favorite main crop variety with market men.

Pkt., 10c; lb., 30c; 10 lbs., \$2.50

Improved Black Wax

The standard early market variety, a sure cropper of good quality.

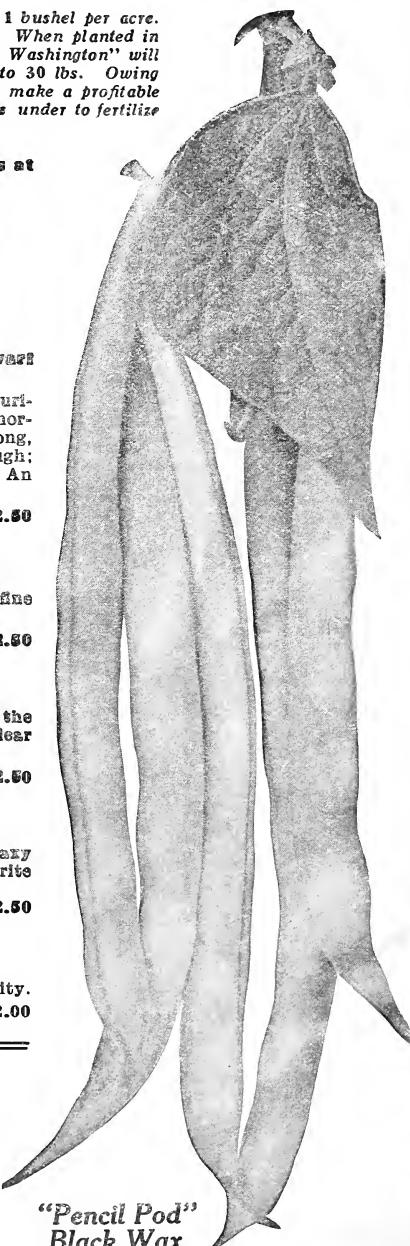
Pkt., 10c; lb., 25c; 10 lbs., \$2.00

For BEANS use 350 lbs. per acre of our

Diamond Vegetable Fertilizer

Ask for our Free Booklet Fertilizers

 "DRY BEANS" are a profitable crop. Lady Washington is the standard commercial variety. Write us before you plant.



"Pencil Pod"
Black Wax



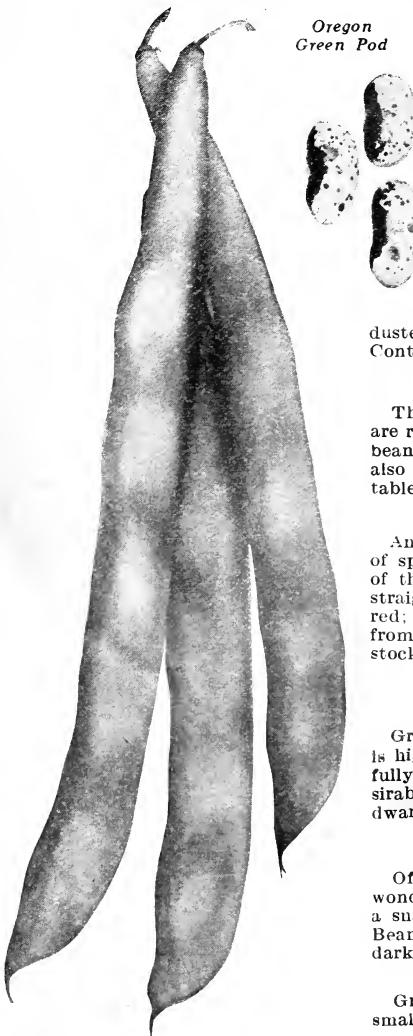
BEANS—Continued

Dwarf or Bush—Green Podded Kind

For single lbs. by mail add 10c postage. Larger lots at parcels post rates.

Owing to our mild Winters and cool Summers, locally grown acclimated seed from properly selected strains will be found to give best satisfaction in the Pacific Northwest. We are constantly testing and selecting the most dependable and profitable sorts and increasing our facilities and connections for local production, and when we offer a variety as being suited to your requirements and location you can accept it without fear of disappointment.

Oregon
Green Pod



In growing Beans commercially, sufficient moisture, freedom from frost from the middle of May to late September, and thorough preparation of the soil with good cultivation, are the requirements for a profitable crop. Closer planting can be practiced where there is plenty of moisture and under dry conditions as too much moisture will not allow the crop to mature properly and close planting will often hasten maturity by absorbing the moisture, growing conditions being favorable.

Anthracnose produces large, scabby, dead spots on the pods and the controlling measures are the selection of clean seed and spraying the plants with Bordeaux Mixture.

Powdery Mildew, showing a white growth of fungus covering the surface of the leaves, especially in rainy or damp weather, should be treated with powdered sulphur.

Cut worms and flea beetles can generally be controlled by the use of "Corona" Arsenate of Lead, either sprayed or dusted on the foliage. Ask for booklet "Garden Pests and their Control."

Stringless Green Pod Extra Early

The finely shaped, long green pods are absolutely stringless, and are ready to market two weeks earlier than any other green-podded bean. It is of immense value, not only to the market gardener, but also for those who seek early beans of a rare quality for the home table. A splendid dried brown bean. **Pkt., 10c; lb., 30c; 10 lbs., \$2.50**

Oregon Green Pod

An old time favorite with marketmen and for home use, being of splendid quality, very hardy, and we believe the most prolific of the green-podded bush beans; is a second early, with long straight, handsome pods, well filled with large white beans, mottled red; bears through a long season. In response to the insistent demand from those who are familiar with its merits, we have grown a fine stock and restored this splendid bean to its place in our list.

Pkt., 10c; lb., 30c; 10 lbs., \$2.50

Dwarf Horticultural or "Cranberry Bean"

Grows erect, strong and shrubby, and is very prolific. The bean is highly prized, green shelled. It is rather large, plump and beautifully mottled yellow and red; one of the most delicious and desirable beans and a great favorite with market gardeners. The dwarf type of the old favorite London Horticultural Pole Bean.

Pkt., 10c; lb., 25c; 10 lbs., \$2.00

Refugee, or Thousand to One

Of great value on account of its hardiness, vigorous growth and wonderful productiveness. Is not excelled by any other variety as a snap bean, and is considered the best for pickling or canning. Beans small, dark purple, veined brown. Pods of perfect form, dark green, veined purple. **Pkt., 10c; lb., 20c; 10 lbs., \$1.75**

White Navy

Grown extensively for marketing dry shelled. The best known small white bean. Dwarf in growth and very productive.

Crop failure

Canadian Wonder

This splendid bush bean is the largest, most prolific of the green-podded sorts, and is entirely stringless in its early development. Comes a little later than the New Stringless Green Pod, but continues in bearing throughout the season, and is excellent shelled green.

Pkt., 10c; lb., 25c; 10 lbs., \$2.00

Broad Windsor "Horse Beans"

Stalk erect, strong and shrubby. The bean is large, broad and flat; should be planted early and is best green shelled. A European variety, very hardy and can be planted earlier than other sorts. Grown extensively for stock in some sections.

Pkt., 10c; lb., 15c; 10 lbs., \$1.25

Lady Washington

Sturdy, bushy plant, erect habit, and is a great improvement over the old "Navy," being much earlier, a little larger, and a very heavy yielder; being especially adapted to our Western soils, and is entirely free from disease. Bush attains a height of about fourteen inches, and beans mature in September. **Pkt., 10c; lb., 25c; 10 lbs., \$2.00**

Castor Bean

For Ornamental Varieties see flower seed)

Used for medicinal purposes and by some claimed to keep moles away. Castor beans are very ornamental, the plants and foliage being large and tropical in appearance.

Pkt., 10c; lb., 20c

Climbing or Pole Beans

For single lbs. by mail add 10c postage
Larger lots at parcel post rates

CULTURE.—Do not plant until the soil has become warm and the weather settled—and always remember beans should have rich, well drained soil. It is best to set the poles before planting; these should be six to eight feet high, rows about four feet each way

Plant four to six beans to the hill and thin to two or three, depending on the variety. If trellis is used, sow in hills about one to two feet apart in the row. A pound should plant 75 to 100 hills. A top dressing of commercial fertilizer or old manure should be worked in when cultivating

Asparagus Bean

The True Asparagus Bean is superior to Kentucky Wonder in quality and fully equal in productiveness. The long, slender pods are very fleshy, almost round, crisp, tender and delicious, of a beautiful pale green color, attractive form and absolutely stringless. No bean equals them either for market or home use. They grow vigorously and bear heavily, the vines being literally covered with great clusters of shapely pods. Asparagus beans are profitable and heavy producers for market or garden, but owing to their fleshy pods are a difficult seed crop to produce and the demand has always exceeded the supply.

Pkt., 10c; lb., 35c; 10 lbs., \$2.00

Kentucky Wonder

A vigorous climber; very prolific, bearing in clusters extremely long and very fleshy, succulent pods; flat, thick and remarkably tender. A first-class pole variety.

Pkt., 10c; lb., 25c; 10 lbs., \$2.00

London Horticultural The "Cranberry Pole" Bean

Very desirable for the family garden. Vines vigorous; pods green, streaked with red. Bean large, oval, cream colored, beautifully splashed with red. Has no superior, green, shelled or dry.

Pkt., 10c; lb., 20c; 10 lbs., \$1.50

Lazy Wife

Pods are from four to five inches in length, produced in large clusters in great abundance. Dark green, thick, fleshy and stringless; of unusually rich flavor. Dry beans, pure white; excellent for winter use.

Pkt., 10c; lb., 30c; 10 lbs., \$2.50

Dutch Case Knife

Good corn hill bean; very early; pods long and flat; beans white; used green or dry.

Pkt., 10c; lb., 25c; 10 lbs., \$2.00

Scarlet Runner

A favorite as a shell bean and for its flowers, which are bright scarlet; seeds broad and kidney shaped.

Pkt., 10c; lb., 30c; 10 lbs., \$2.50

Oregon Pole Lima

The only Lima Bean that will thrive in our cool climate

Oregon Pole Lima grows a strong, thrifty vine and is very prolific, bearing continuously until frost, the blossoms bursting from the top shoots in long panicles, while the pods can be seen in every stage of development, to the matured beans at the bottom of the vine. Pods are well filled, having three to five large beans of the finest quality. Gather any time after full maturity.

Oregon Pole Lima can be planted in any garden soil as early as April or late as July. Give the same care and culture as other Beans, and they are ready to use when the pods are filled and first begin to ripen. It is not necessary that they should dry on the vines, except for seed.

They are at their best when the full green pods begin to turn yellow

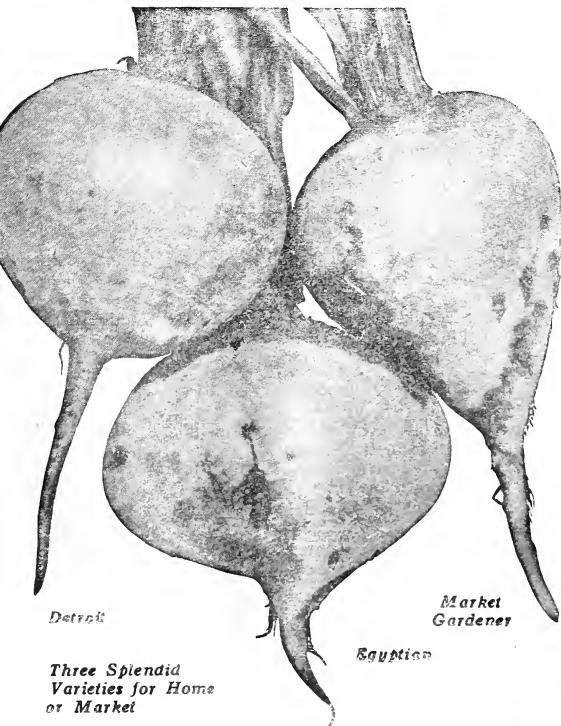
Try "Oregon Pole Lima." It is a wonder, sure to grow, and will produce more fine beans of delicious table quality than any variety we know of.

Price per pkt., 15c; $\frac{1}{2}$ lb., 25c; 1 lb., 40c; postpaid



BEETS

CULTURE.—The Beet is hardy and may be planted as soon as the ground can be well prepared, doing best in rich, sandy soil, sown in rows sixteen inches apart, covered one and one-half inches deep. The seed will sprout better if soaked twenty-four hours in warm water before planting. Thin out by using the largest ones when they are of sufficient size, continuing until they are six or eight inches apart in the rows. For field crop, the rows should be far enough apart to permit the use of a horse cultivator.



Three Splendid Varieties for Home or Market

Half Long Blood

A new variety of excellent quality. One of the very best for Winter use; does not become woody and keeps as well as the long Dark Blood. The root is smooth and handsome, and the flesh is brilliant in color and as good in quality as the best Blood Turnip varieties. Give it a trial.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., \$1.15

Diamond VEGETABLE FERTILIZER

600 to 1000 lbs. per acre for Beets—Full information in our free Booklet "Fertilizers."

Spinach Beet

Swiss Chard or Sea Kale

New Savoyed Leaf "LUCULLUS." A wonderful new sort of "Spinach-Beet," growing about two and a half feet high. The heavy stalks are over an inch thick and bare for more than a foot of their length. The leaves make the finest of "greens." Swiss chard is hardy, easily grown and should be in every garden. It is one of the most delicious of all vegetables.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 50c



P. S. Co.'s Market Gardener

This new, extra early Beet is remarkable for its fine quality and rapid growth; it is of deep red color and handsome shape; as an early market sort it is unrivaled. It is to a large extent superseding the Egyptian, being earlier in development, more attractive in appearance and of superior quality for the table. Market gardeners prefer it.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 40c; lb., \$1.25

Detroit Dark Red Turnip

A fine Beet for bunching for market; tops exceptionally small and uniformly upright. The roots are perfect turnip shape with small taproots. One of the deepest red beets. Quality is of the finest; sweet and tender, best beet for home gardens.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 35c; lb., \$1.00



Extra Early Egyptian

The best variety for forcing, and for market gardeners, being very early with small tops. Roots very dark red, rounded on top, but flat beneath, with very small tap roots.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00

Early Eclipse

One of the best early sorts. It possesses all the qualities requisite in a first-class beet, and is of a uniform, globular shape. The roots are bright, glossy red, fine-grained and delicious.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00

Early Blood Turnip—Improved

An extra selected stock of blood turnip having larger, coarser tops and roots than the Detroit Dark Red, and requiring a longer time to mature. Excellent for Summer and Autumn use.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00

Long Smooth Dark Blood

The leading late variety, keeping well all Winter. Should be planted in rich, warm soil to secure rapid growth, which makes them tender. Tops small, root long and smooth. Flesh deep purple, fine and sweet.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00



Swiss
Chard
"Sea Kale"

BEETS—Continued—MANGEL WURZEL

These are grown extensively for stock feeding, and afford large quantities of fresh, nutritious and wholesome food during the Winter months, in connection with grain and dried forage. Sugar Beets are richer and sweeter than Mangels, but do not produce as heavily.



Eckendorf

CULTURE OF MANGEL AND SUGAR BEETS.—Thoroughly fine the soil as good roots cannot be grown in lumpy, poorly prepared ground. The largest crops come from a soil ranging from light to a friable clay loam that has received from eight to fifteen loads of manure to the acre. This can be plowed in or half broadcast and half used in the furrows; a deep plowing in of fresh manure in the Fall is best. It is also necessary to add some commercial fertilizer, but any good soil will grow a fair crop under ordinary culture.

Use 6 to 10 pounds of seed to the acre, depending on whether machine or hand planting is used, planting liberally so that in thinning an even stand can be secured. The rows can be 18 to 30 inches apart, depending upon soil and method of culture. Level culture is best. If planted during dry weather, be sure the seed is in from one to one and one-half inches as it requires lots of moisture to burst the hard shell.

A poor stand and weak germination is often due to improper planting and lack of moisture. Transplanting can be successfully done to fill vacancies. Do this before a shower, and early, breaking off the tops of the larger leaves.

Like all root crops, they require clean culture. Thin early, giving two thinnings and leaving the plants 10 to 12 inches apart. The medium sized roots have the greatest food value.

Forty to sixty tons is a fair yield of Mangels. Sugar Beets, 10 to 13. Beets are easily spoiled even by light freezing and should be cut and stored to protect from frost, covering with a little soil to prevent evaporation.



Sludstrup

Yellow Giant, Intermediate, or Gate Post

Roots very large, growing over one-half out of the ground; flesh white, sweet and tender; tops bright green, comparatively small; neck small, short. We think perhaps this is the best of the yellow fleshed beets, because its fine flesh never becomes woody and its roots grow so well out of the ground that the crop is easily harvested. An enormous cropper.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 65c
Not postpaid, 5 lbs., \$2.50; 10 lbs., \$4.50

Mammoth Long Red

An improvement on the Long Red. It stands head and shoulders above all other varieties of Mangels; unequalled for yielding and feeding qualities. Grows to a very large size, and will yield 50 tons per acre with ordinary cultivation. If you want a large crop of large Mangels of good quality, don't fail to try this sort. Very uniform, smooth and of good shape. Should be grown in deep loose soil.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 65c
Not postpaid, 5 lbs., \$2.50; 10 lbs., \$4.50

New Mangel Half Sugar

A new variety, more valuable for feeding purposes than the old sorts, it being very much richer. In addition to this, the size and form have been improved until it yields as much per acre as the best Mangels, and twice as much per acre (bulk of roots) as the rich sugar beet. Roots large, very smooth, with few rootlets; creamy white in color, with medium sized tops.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 65c
Not postpaid, 5 lbs., \$2.50; 10 lbs., \$4.50

Danish Sludstrup

This new Mangel comes highly recommended. Our seed is direct from the originator. We give his descriptions as follows: Long, reddish-yellow, grows well above the ground, and is easy to pull. Has repeatedly been awarded a first class certificate by the Danish Government and is doubtless the best Mangel in the world.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 70c
Not postpaid, 5 lbs., \$2.75; 10 lbs., \$4.75

Danish Red Giant Eckendorf

Is of straight, cylindrical form, very blunt, and grows mostly above the surface. Awarded a first-class certificate as a very heavy cropper.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 70c
Not postpaid, 5 lbs., \$2.75; 10 lbs., \$4.75

Golden Tankard

Considered indispensable by many dairy farmers. They state that they are able to obtain a higher price for milk when feeding cows on "Golden Tankard." Sheep thrive on it. "Golden Tankard" is of a rich, deep yellow throughout. Early, hardy and a heavy cropper; on account of its shape the roots can be left standing close in rows.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 65c
Not postpaid, 5 lbs., \$2.50; 10 lbs., \$4.50

Improved Danish Intermediate—Taaroe

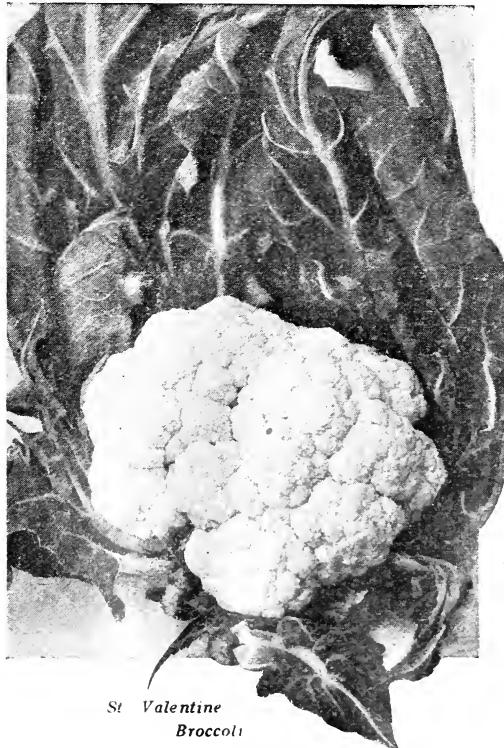
—Best for Heavy Soils

Large, smooth, oval shaped mangel that grows high above the ground and is easily harvested. For very heavy soils this variety is preferable to the "Sludstrup." The food value is very high, the yield large. Special awards and first-class certificate by the Danish government.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 70c
Not postpaid, 5 lbs., \$2.75; 10 lbs., \$4.75

BROCCOLI

or Winter Cauliflower



St. Valentine
Broccoli

BROCCOLI is so nearly related to late Cauliflower that the varieties are often listed under both heads—the principle difference being in the hardness and time of maturity. Broccoli not heading until late Winter or early Spring. Culture is same as for late Cauliflower, and good, rich, well-drained bottom land is best, but well-tilled, well-fertilized upland will produce a good crop.

 The St. Valentine Broccoli, which we introduced some years ago, has been extensively grown by commercial planters and a profitable industry established—many car-loads being shipped from Oregon each season.

St. Valentine

The Finest of All Broccoli

This grand new strain introduced by us is a sure header of immense size, finest quality, and is ready for market in February. The large, solid, handsome, white heads remain in good condition longer than other varieties.

Pkt., 10c; $\frac{1}{4}$ oz., 50c; oz., \$1.25

Large White French

A valuable variety with large, white heads, firm and of good flavor.

Pkt., 5c; oz., 65c; $\frac{1}{4}$ lb., \$1.50

We are the only source of supply of the genuine St. Valentine Broccoli—our seed stock coming direct from the originator.

Brussels Sprouts

The plants, which are very hardy, grow two or three feet high, and produce, from the sides of the stalks numerous little sprouts, which resemble very small cabbages one or two inches in diameter. The leaves should be broken down in the Fall, to give the little heads more room to grow. They should be treated in all respects like Winter cabbage or kale.

Odense Market

An improved Danish variety producing in greatest abundance firm, shapely sprouts, thickly set around the entire stalk; will stand a severe Winter, and is unsurpassed for market or home garden.

Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 75c

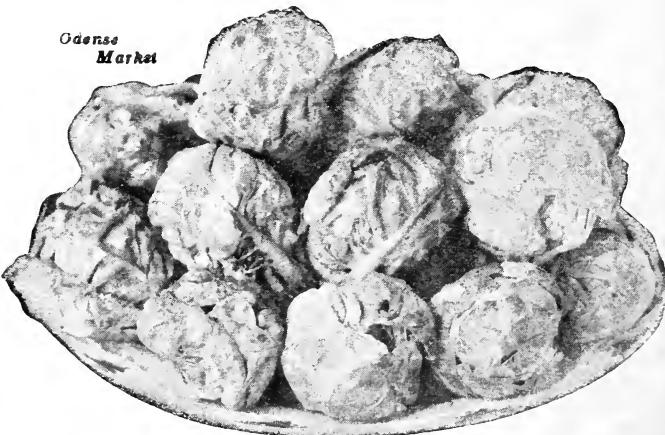
Dwarf Improved

A carefully grown strain, very hardy and giving compact, round sprouts of large size and good quality.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 35c

LOOK over our **BOOK** list. An up-to-date Garden Book may save you some money.

Vegetable Plants

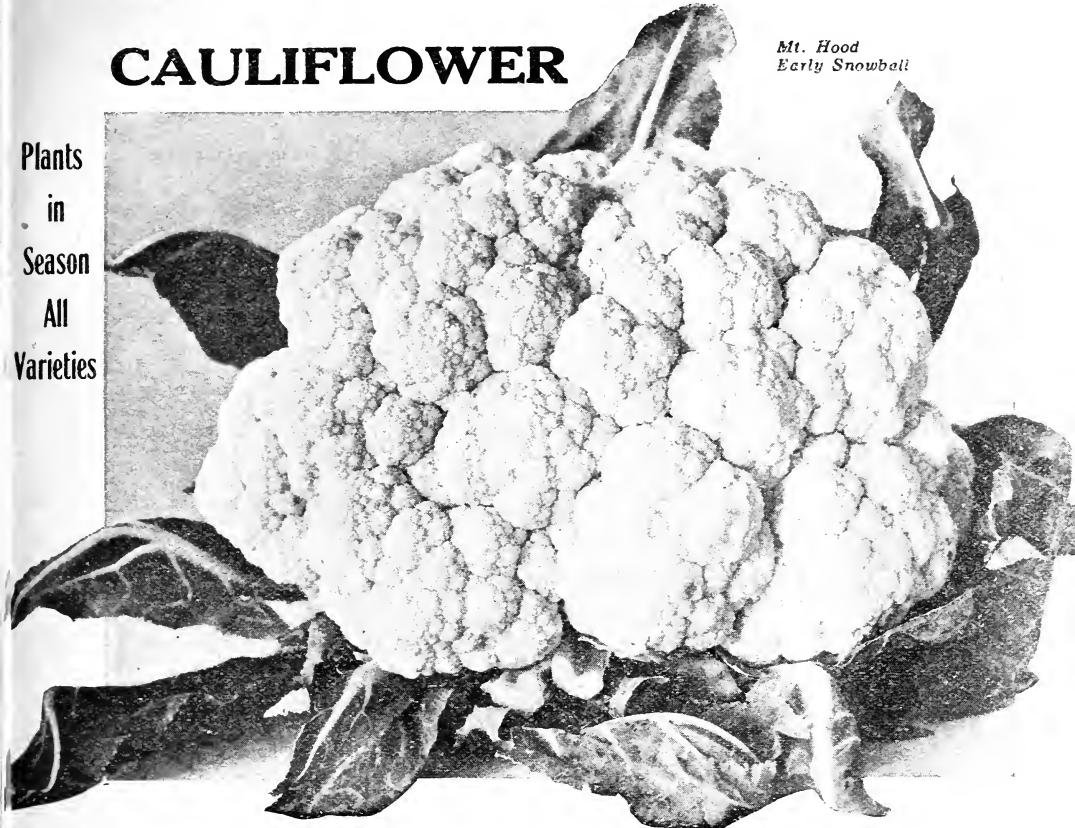


Thrifty, well grown, true to name standard varieties in any quantity for seasonable delivery. See PLANT DEPT.

CAULIFLOWER

Mt. Hood
Early Snowball

Plants
in
Season
All
Varieties



CULTURE.—The Cauliflower succeeds well in any soil where cabbage will grow but best results are obtained in rich loam with an abundance of water. By sowing early varieties in a hot bed in February or March, or later in a cold frame, fine heads can be obtained quite early. For a later supply, sow seed in a prepared bed in May, choosing a cool, moist place. When large enough, transplant, making the rows about two and a half feet apart and eighteen inches between the plants. In dry seasons the crop must be watered.

P. S. Co.'s "Mt. Hood" Early Snowball

The seed that produces those handsome large white solid heads that bring big profits to the gardener. We offer our "Mt. Hood" Cauliflower seed in sealed packets only, under our own label, it having been carefully selected and grown for us by one of the very few expert Cauliflower growers, and is the best strain of "Early Snowball" obtainable. We especially recommend "Mt. Hood" Snowball for either early or late planting.

Pkt., 25c; $\frac{1}{2}$ oz., \$1.50; oz., \$2.50

Early Snowball

Ordinary strain. This is the regular grade of "Early Snowball" that is generally offered, and while it will not give as good results as "Mt. Hood," can be depended upon to produce a good crop.

Pkt., 5c; oz., \$2.00; $\frac{1}{4}$ lb., \$6.00

Autumn Giant

The heads are white, large, compact and thoroughly protected by foliage.

Pkt., 5c; oz., 75c; $\frac{1}{4}$ lb., \$2.00

Danish Giant—Dry weather Cauliflower

"Danish Giant" is an early, large, solid white Cauliflower that can successfully withstand a drouth that would prove fatal to other varieties and will thrive splendidly in dry sections, being peculiarly adapted to their growing conditions, but like all cauliflower must have rich soil and cultivation to give best results. "Danish Giant" can also be grown under moist conditions and is a dependable market variety. If your location is subject to drouth or you are "dry farming," be sure to plant "Danish Giant."

Pkt., 20c; $\frac{1}{4}$ oz., 60c; oz., \$2.00; $\frac{1}{4}$ lb., \$8.50

Large Algiers

A valuable late sort, sure to head, of the best quality and very popular with market gardeners everywhere. Plants large, but of upright growth, the leaves protecting the heads so that they will endure, uninjured, a frost that would ruin other sorts. One of the very best of the late varieties.

Pkt., 5c; oz., \$1.25; $\frac{1}{4}$ lb., \$3.75

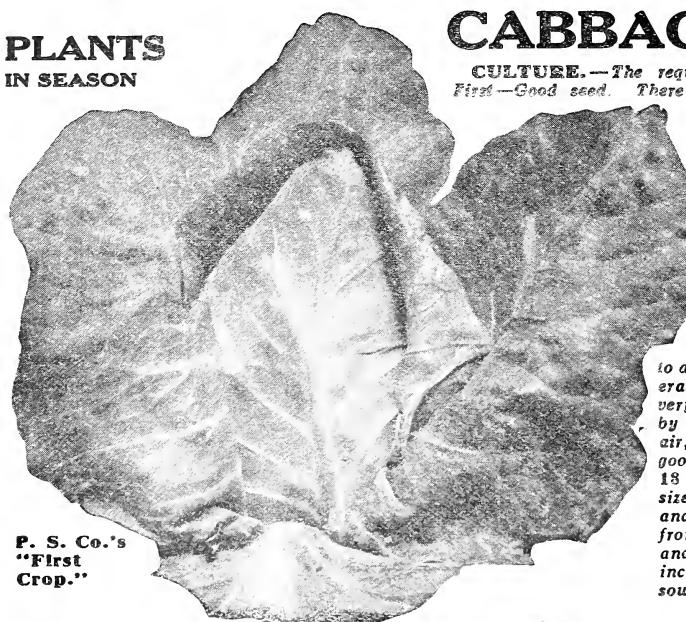
"CORONA DRY" The Universal Insecticide Powder—For the control of garden pests—Used on Cauliflower and Cabbage before heading. Saves them from Cutworms and Chewing Insects. Free Booklet, "Garden Pests."

DON'T BUY

cheap strains of Cauliflower Seed. Only the best select strains can be depended upon to produce a big percentage of large, white, solid heads.



PLANTS IN SEASON



P. S. Co.'s
"First
Crop."

It is important that the plants should not be crowded in the seed bed, or they will run up weak and slender and be likely to make long stems

P. S. Co. First Crop The Ideal Early Cabbage

The earliest of all pointed varieties and an ideal sort for the private or market gardener

First crop being ten days ahead of any other cabbage, takes but little room, and produces fine, solid heads. We advise all our customers to try this new variety for we believe it is a *sterling novelty of the greatest value*.

Pkt., 5c; oz., 25c; $\frac{1}{4}$ lb., 60c

Copenhagen Market

A Splendid Cabbage for Home Gardens

A now extra early globe-shaped Cabbage slightly flattened. The large solid heads are very uniform, with few outer leaves, keeps well and stands handling. Copenhagen Market originated in Denmark, where it is the favorite market variety, and we recommend it to our customers as the best early round head. Gardeners should give it a trial. Our stock is direct from the originator.

Pkt., 10c; oz., 25c

Succession

Heads large, slightly flattened; grows low on the stem.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 50c; lb., \$1.50

For Cabbage—

Use 1000 pounds per acre of
DIAMOND FRUIT FERTILIZER

Full information and analyses
in our Free Book "Fertilizers"

CABBAGE

CULTURE.—The requisites for complete success are: First—Good seed. There is no other vegetable where the seed has so much influence on the quality of the product, and gardeners should always use the best procurable. Second—Rich, well prepared ground. Third—Frequent and thorough cultivation. A heavy, moist and rich loam is most suitable, which should be highly manured and worked deeply. Cabbage is universally grown and specific directions regarding the time and method of planting applicable to all localities cannot be given. In general, the early sorts should be sown very early in hot beds, hardened off by gradually exposing to outside air, and as early as the ground is in good condition, transplanted, setting 18 to 36 inches apart, according to size of variety. The late Autumn and Winter varieties may be sown from the middle to the last of Spring and transplanted when four to six inches high. Shade and water the late sowings in dry weather to get them up.



Early Jersey Wakefield

The favorite Early Cabbage with our market gardeners. A sure header. The thick, stout leaves and compact habit make it the best for Wintering over and very early setting.

Grown more extensively for market than any other early cabbage. Is always of good size, very solid, and has but few outside leaves; a reliable header and always gives good satisfaction.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 50c; lb., \$1.50

Early Dwarf Flat Dutch

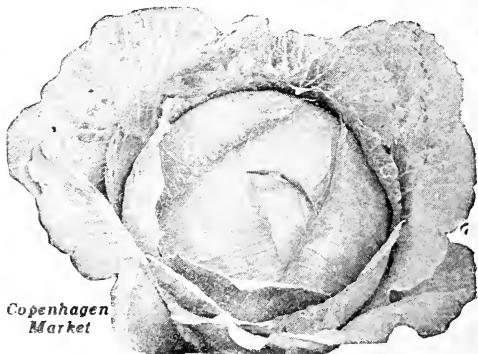
Grows low on the stem; a sure header; firm, fine grained, tender and excellent.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 50c; lb., \$1.50

Early Winnigstadt

A desirable variety, having conical, solid heads; a sure header under almost any conditions, and keeps better than most early varieties. Fine appearance and of excellent quality.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 50c; lb., \$1.50

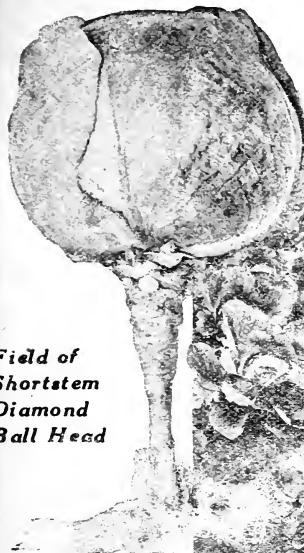


Copenhagen
Market

Well grown stocky plants, properly hardened off—all standard sorts in season. Prompt deliveries at right prices. SEE PLANT DEPARTMENT.

Cabbage Plants

CABBAGE—Continued



**Field of
Shortstem
Diamond
Ball Head**

Diamond Ball Head

An Improved Danish Ball Head, reselected for many years by our grower, who has been successful in securing a perfect late market sort of just the right size and finest quality. Heads are a little flatter than the older strain and stems shorter, color lighter green, but showing the characteristic reddish veins on the outer leaves. Solid, crisp, and of remarkable uniformity; market growers will get more perfect salable heads from **Diamond Ball Head** than from any other late cabbage. **Pkt., 10c; oz., 25c; ¼ lb., 75c; lb., \$2.50**

Danish Round Head

A round ball shaped cabbage of great solidity. Color, rich dark green, has few outer leaves, is very hardy and is a profitable late market variety. **Pkt., 10c; oz., 25c; ¼ lb., 75c; lb., \$2.50**

Charleston, or Large Wakefield

Large and a little later than the "Early Jersey Wakefield."

Pkt., 5c; oz., 20c; ¼ lb., 60c; lb., \$1.50

Red Cabbage

Odense Market

Used for pickling. The heads are very fine and remarkably sure heading.

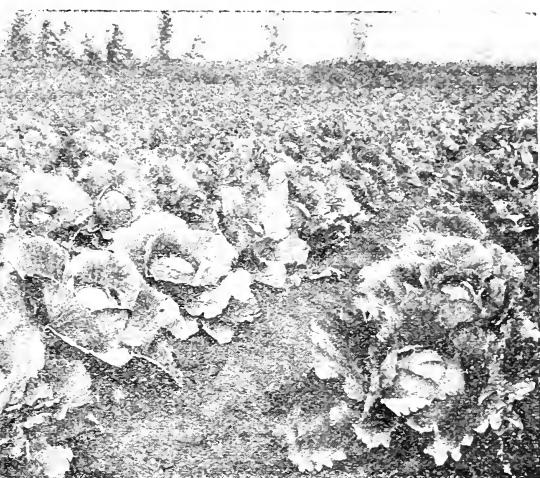
Pkt., 5c; oz., 20c; ¼ lb., 60c; lb., \$2.00

Savoy Cabbage

Vertus—Late Savoy

Large, compact heads; crisp and tender with a rich flavor. Desirable for cooking or salads.

Pkt., 5c; oz., 20c; ¼ lb., 60c; lb., \$2.00



Premium Late Flat Dutch

This is superior to any other late cabbage in cultivation, when large areas are planted for shipping. It possesses all the good qualities of the "Late Flat Dutch," and is a sure header.

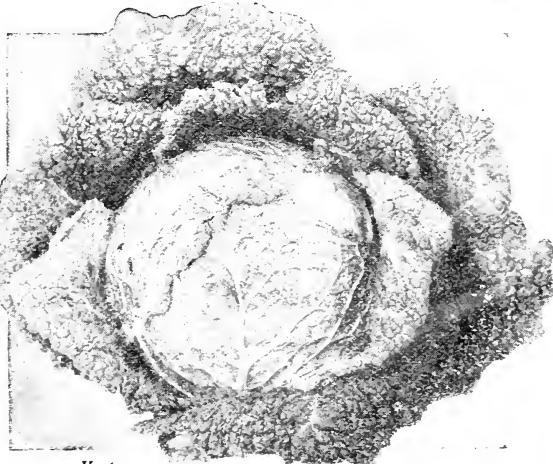
Pkt., 5c; oz., 20c; ¼ lb., 60c; lb., \$1.50

Danish Ball Head or Hollander

This is one of the hardest cabbages in cultivation and endures both frost and drought that would destroy other varieties.

Plants rather long-stemmed, but compact; leaves very smooth, but thick; head of medium size, round and very solid, being *the hardest heading cabbage we know of, and of the very best quality*. Matures quite late, keeps well, and is considered by many the best cabbage to hold over for Spring markets.

Pkt., 5c; oz., 20c; ¼ lb., 60c; lb., \$1.75



Vertus

If you grow cabbage, kale, cauliflower, celery—you need a MASTER'S PLANTER
Price \$4.25. Endorsed by the Washington State Experiment Station, Bulletin No. 6.



CARROTS



CARROTS, aside from being one of our most useful and easily grown garden vegetables, are invaluable for stock feeding. They are greatly relished, promote health and put a sleek coat on cattle and horses, giving a well-kept appearance. Dairy and stockmen should grow them extensively. For their special use we recommend our "Yellow Giant."

CULTURE.—A sandy loam is the best soil for the carrot, but any good land, if thoroughly and deeply worked, will produce satisfactory crops. Sow as early in the Spring as the ground is fit to work, though good crops may be grown from sowing as late as June 15. For table use, sow the smaller kinds in rows 16 to 18 inches apart, and for field culture prepare the ground thoroughly and sow in drills 18 to 24 inches apart. Cover one-half to one inch deep and see to it that the soil is well firmed above the seed.

Earliest Short Horn, or French

The earliest variety in cultivation, and best suited for forcing. Roots, reddish brown, globular and about two inches in diameter should be used before full grown.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 40c; lb., \$1.25

Early Scarlet Horn

The best early kind for general use. It is larger than the forcing variety, but fully as good in quality, and produces a much larger crop.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 35c; lb., \$1.60

Oxheart

A thick carrot, five or six inches long and very blunt at the lower extremity. It grows very rapidly and the root attains a weight of more than a pound. It is tender and of good flavor.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 35c; lb., \$1.00

Chantenay

The Market Gardener's Favorite

Tops, medium sized; necks, small; roots, tapering slightly, but uniformly stump-rooted and smooth; color, deep orange red; flesh, very crisp and tender. Although this is a medium early sort, it furnishes roots of usable size as early as any; is a heavy cropper, and is **undoubtedly one of the best for both the market and private garden**, while its great productiveness makes it very desirable as a field sort.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 35c; lb., \$1.00

“EXCELLENT POTATOES”

Gentlemen:

In the spring of 1916 I purchased of the Portland Seed Company 60 lbs. of Pride of Multnomah seed potatoes. I planted 50 lbs. on a lot 50 x 60 ft. and harvested in October, 1916, 2,400 lbs. of marketable potatoes from this ground. They are excellent potatoes.

(Signed) JOHN T. HOLLOWAY.



USE DIAMOND VEGETABLE FERTILIZER FOR CARROTS

Our Book "FERTILIZERS" tells you how to profitably use Fertilizer. Tells you what you should get for your money when you buy Fertilizers—a book every grower should have and is FREE FOR THE ASKING

Danver's Half Long

Grown largely on account of its productiveness and adaptability to all classes of soil. Tops, medium sized, coarsely divided. The smooth, handsome roots are of medium length, tapering uniformly to a blunt point; flesh, sweet, crisp, tender; deep orange in color. Although the roots of this variety are short, they produce as large bulk as the longer field sorts, and are more easily harvested.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 90c

St. Valery

A popular French Carrot of a deep, rich orange red color, with very straight roots, broad at the top and tapering abruptly near the point. Average length 10 to 12 inches, foliage small. The table quality is excellent and the fact that it yields heavily in light soil makes it useful as a stock carrot. We consider it a valuable variety.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Portland Seed Co.'s Improved Long Orange

Popular for farm use on deep, mellow soil. Our stock is an improvement obtained by years of careful selection of the best formed and deepest colored roots, which grow to a large size, some specimens averaging twelve inches in length. Enormous crops can be grown under fair culture; one of the best varieties for feeding stock.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 80c



CARROTS—Continued

Good and Productive Stock Carrots

Portland Seed Company's
Yellow Giant

Specially Adapted to Moist, Heavy Soils

This new Carrot originated at the Sydney, Australia, Experimental Station, and has proved itself to be the **earliest and most productive stock carrot offered to date**. It is a half long variety, with an **immense broad shoulder**. The Carrot penetrates less than one-half the depth into the ground, which saves about one-half the expense of harvesting the crop. The color is of bright yellow, and is **perfection itself** for giving the proper color to butter. Every dairyman who wants a big crop of carrots of the right quality and easy of culture should plant our Yellow Giant.

 Crop shortage makes it impossible to supply this season—but present contracts insure an ample supply for 1918.

Chervil—Curled

This plant is used for flavoring soups and salads, and has a strong perfume.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 35c

Cress

Curled, or Pepper Grass

This salad is much used with lettuce, to which its warm, pungent taste makes an agreeable addition. The seed should be sown in drills about 16 inches apart, on very rich ground, and the plants well cultivated. It may be planted very early.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 75c

True Water

One of the most delicious of small salads, and should be planted wherever a suitable place can be found. The seed should be sown and lightly covered in gravelly, mucky lands, along the borders of small, rapid streams. Under favorable conditions they increase very rapidly by self-sown seed and extension of the roots.

Pkt., 5c; oz., 35c; $\frac{1}{4}$ lb., \$1.00.

Improved Short White—"Mastodon"
Of Excellent Table Quality

Ranks as a field carrot, owing to its enormous productiveness and the ease with which it can be harvested. Roots half long, smooth, very heavy at the shoulder, but tapering regularly at the point; color, light green at the crown, white below; flesh, rich, white, solid, crisp and of excellent flavor.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 80c

Large White Belgian

Extensively grown for stock feeding; very productive. Grows so much above the ground that the entire crop can be pulled by hand.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 85c

Yellow Belgian

Large root; yellow flesh; good keeper for late feeding. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 80c

Corn Salad

Fetticus, or Lamb's Lettuce

A refreshing salad, used extensively in Winter and Spring as a substitute for lettuce. It is often cooked like spinach. Sown in drills one foot apart, in the Spring or Fall. On the approach of cold weather cover over with straw or coarse litter.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 40c; lb., \$1.25

Collards

True Georgia

Used as "Greens" mainly in the South and West. As the leaves are pulled off, others grow in their places.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 30c

Chives

See Vegetable Plant List. See Herbs.
We supply all vegetable plants in season.

Chicory

Extensively used to adulterate coffee and as a substitute for it. The culture is the same as for carrots. Dig at about the same time as carrots, wash, slice and dry by artificial heat. The blanched leaves are used by some for salad.

LARGE ROOTED OR COFFEE.—The best kind.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 45c; lb., \$1.50

"Diamond Quality" Seeds

"At 5000 Feet"

Gentlemen: May 13, 1916
I wish to say that I have used your garden seeds for the past four or five years and although we have pretty severe conditions to contend with (5,000 feet altitude) our garden is usually the talk of the neighborhood.

(Signed) Eben Young, Jr.

"For 7 Years"

Gentlemen: Feb. 15, 1916
We have been buying your seeds for 7 years and find them very good. I would like to have you send me your seed catalog for 1916. Doing this you will greatly oblige. Yours truly,

(Signed) Fred C. Kutz

"Almost a Failure"

Gentlemen: May 17, 1916
As you know, we have always had our seeds from you, and this season we thought we would try _____. It is enough, somehow the stuff is not reliable. We always had good seeds, true to name and type, from your company, and in the future will let well enough alone.

(Signed) Stephen J. Harmeling

Dear Sirs: Oct. 31, 1916
I am enclosing my fall order and I should like to tell you that I have found your goods very satisfactory. Last year, as an experiment, I sent to a much advertised Eastern firm for my seeds and my garden was almost a failure. Thanking you for your always prompt attention. I am Very truly yours,

(Signed) Mrs. Chas. D. McCutcheon

The National Separator—Cleaned in 3 Minutes

Has the Marvelous "Vortespoon" One Piece Skimming Device — gets all the Cream



CELERY

CULTURE.—Sow the seeds early, in a hot-bed or cold frame. When three inches high transplant, setting them four inches apart. When grown six inches, and fine, stocky plants, set in richly manured, deep soil, in rows three and a half feet apart and about nine inches from plant to plant. Water if dry weather follows transplanting. During the next two months all the attention that is required is to keep down the weeds. Blanch by placing boards along the rows, or earth up a little, and continue doing so at intervals until only the tops of the leaves are visible late in Autumn. Never hoe up the earth when plants are wet. One ounce of seed produces about six thousand plants. SEE FOOTNOTE ON GROWING.



White Plume

CELERY PLANTS

Large
Healthy
Transplanted
Plants in
Standard
Varieties
for
Delivery in
Season.
Any Number
at
Right Prices.
See
Plant
Department

White Plume The Leading White Celery

A handsome, crisp sort, of very easy cultivation. Naturally its stalks and portions of its inner leaves and heart are white, so that by closing the stalks either by tying or by simply drawing the soil up against the plant and pressing it together, the work of blanching is completed without the troublesome process of "banking" or "earthing up." It is the earliest celery known.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 65c; lb., \$2.00

Golden Yellow Self-Blanching

This is no doubt the best celery for early Spring market use. Plants are of a yellowish green color when young, but as they mature the inner stems and leaves turn a beautiful golden yellow, which adds much to their attractiveness and makes the work of blanching much easier.

Pkt., 10c; oz., 75c; $\frac{1}{4}$ lb., \$2.50

Large White Solid

Of vigorous growth, white, crisp, tender; fine, nutty flavor.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 60c; lb., \$1.75

Golden Heart, or Golden Dwarf

Solid, of fine, nutty flavor; excellent.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 50c; lb., \$1.50

Winter Queen

This is without doubt the most valuable variety of celery for Winter and Spring use ever introduced. Has double the amount of heart of any known celery. The plant has a fine appearance, of compact growth, and blanches to a beautiful cream-white. Ribs perfectly solid, crisp and a delicious nutty flavor.

Stored for Winter or Spring use, it is an excellent keeper and when taken out the blanched stalks will be firm and crisp; entirely free from strings; brittle and of sweet flavor.

Pkt., 10c; oz., 35c; 2 oz., 65c; $\frac{1}{4}$ lb., \$1.00

Giant Pascal

Largest variety grown; of fine, nutty flavor; very easily blanched.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 50c; lb., \$1.50

Celery Seed. For flavoring

Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 65c

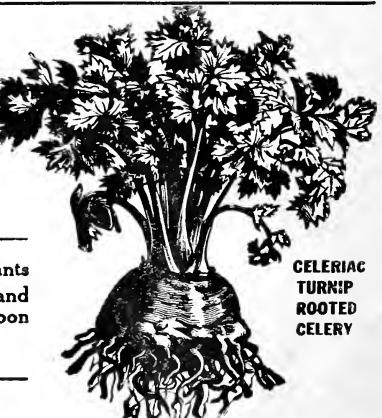
CELERIAC

Turnip Rooted Celery

Large Smooth Prague

Improved form with very few side roots. The largest and best variety.

Pkt., 5c; oz., 20c;
 $\frac{1}{4}$ lb., 60c.



To Succeed with Celery you must keep your plants growing constantly while young, if you allow them to "stand still" they will run up to seed later. Always cultivate as soon after watering as the ground is dry enough to work well. Fertilize heavily in the spring—and use nitrate later if needed.

DIAMOND FERTILIZERS FOR CELERY
Read our Fertilizer Book Mailed free on request

CUCUMBERS

CULTURE.—Cucumbers need a warm, rich soil, and should not be planted in open ground until the weather is settled, as otherwise they will not thrive. Plant in hills four feet apart each way, thinning to three or four of the strongest plants, after danger from insects is passed. As fast as the cucumbers attain suitable size they should be taken from the vine, whether required for use or not, as their ripening soon destroys the vines' usefulness.

"Diamond" Long Green

The leading large variety. Fruit from ten to twelve inches long, dark green, crisp and tender. A good variety for slicing, and when ripe they are the best for sweet pickles. We offer our "Diamond Strain"—they will grow long and uniform in shape. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 85c

Peerless, or Early White Spine

One of the best sorts for table use, fruiting early and abundantly. Fruit uniformly straight and handsome; light green, with a few white spines.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 85c

Boston Pickling, or Green Prolific

Color, bright green, and a great producer. The fruits average four to five inches in length when large enough for slicing, and are of excellent quality, but it is for producing medium sized pickles that this variety is so highly esteemed.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 85c

Cumberland Pickling

The vines are hardy, strong, and fruit very freely. The straight young fruits possess the distinctly roughened surface so much desired for small pickles. The large fruits average nine to ten inches in length, two and a half inches in diameter, with full rounded ends, and are of good quality for slicing. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Gherkin For Pickling

A very small, oval, prickly variety, quite distinct from all others. Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 60c



Early Cluster

Fine, vigorous, producing the bulk of the crop near the root and in clusters. Fruit short with uniformly thick end, dark green, but paler at blossom end. A very productive sort.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Short Green, or Early Frame

An excellent sort for both table use and pickling. Fruit straight, small at each end, bright green, with crisp, tender flesh. Comes into use a little later than the Early Cluster and keeps green a long time. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c.

Telegraph—Forcing

A standard forcing variety, very popular with gardeners. Fruit fourteen to sixteen inches long, of very fine quality. A sure and heavy cropper.

Pkt., 25c

Lemon Cucumber

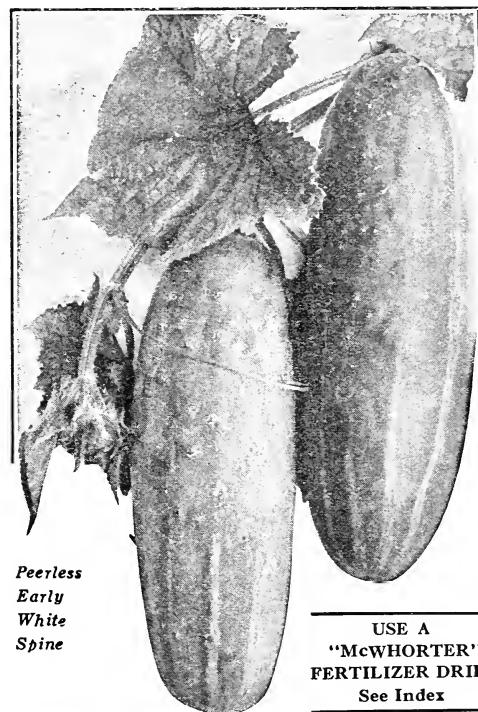
This dainty little cucumber resembles a lemon both in form and color, having a distinctive flavor superior to and not found in any other cucumber. The Lemon Cucumber is so prolific that a single vine will be ample for the needs of the average family. It is also said that the Lemon Cucumber can be eaten without fear of the harmful results that some experience from eating cucumbers.

Pkt., 5c; oz., 25c; $\frac{1}{4}$ lb., 75c; lb., \$2.00

Japanese Climbing

A useful variety for growing on a trellis or wire. The cucumbers are long of a dark green color, white flesh, crisp, and of a good flavor.

Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 50c



Peerless
Early
White
Spine

SEE A
"MCWHORTER"
FERTILIZER DRILL
See Index

"The Davis Perfect" Cucumber

The "Davis Perfect" is of perfect form, large size and of the finest color; is crisp, delicious and almost seedless.

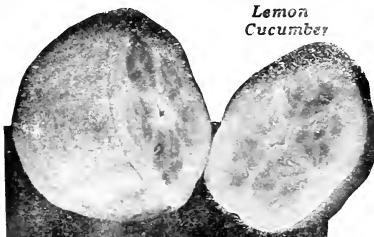
The "Davis Perfect" is as handsome, grown outside, as any hothouse cucumber.

Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 35c; lb., \$1.00

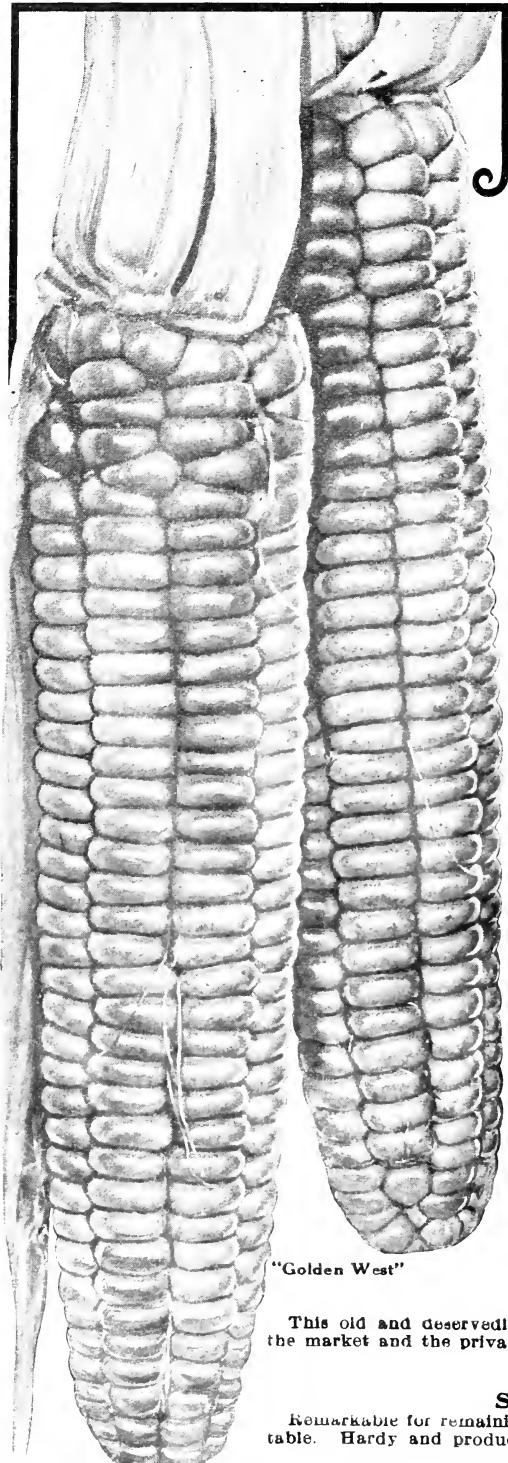
Early Russian

Earliest and hardest. Very vigorous and productive. Fruit three to four inches long, thick, oval, pointed at each end, and covered with fine, small spines. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Lemon
Cucumber



For Cucumbers "DIAMOND FRUIT FERTILIZER" will repay its cost many times over. Let us send you our FREE BOOK "FERTILIZERS"



Sweet or Sugar Corn

For single lbs., by mail, add 10c postage; large lots at parcel post rates

CULTURE.—Corn should not be planted until the ground is warm, as the seed will rot in cold, damp soil, or if planted too deep. Late April is early enough for first plantings and for succession plant every two weeks through May and June. Cover the first planting very lightly, increasing the depth a little for the later plantings. For the Dwarf Early varieties, rows should be three feet apart; for later large varieties, four feet, and the hills two to three feet in the rows.

Sweet or Sugar varieties are used both for table and stock feeding, some of the large later sorts being reserved for silos and fodder.



Golden West—Oregon Grown Seed

The richest, sweetest corn ever grown—To be sure of the right strain, look for our Diamond trade mark on every package.

Our "Golden West" Corn, a selection from the original strain of Golden Bantam, produces a larger ear, has a more vigorous growth, and by continued careful selection, improves yearly. We believe it to be the richest, sweetest, best yielding early sweet corn, nothing having ever been produced that will compare with it in any way. "Golden West" is extremely hardy, can be planted earlier than other varieties, and, being of dwarf habit, can be planted closer than other sorts. It is the very best corn for market or home gardens, where earliness and quality are considered. The color is a rich, creamy yellow, deepening to golden as it matures, and the quality is so fine that you must try it to appreciate how good corn can be.

Pkt., 10c; lb., 25c; 10 lbs., \$2.00

Golden Bantam

The original yellow sweet corn. Does not grow quite as large an ear as our "Golden West," but has most of its good qualities, being early, productive, sweet and rich.

Pkt., 10c; lb., 20c; 10 lbs., \$1.75

Oregon Evergreen

We offer "Oregon Evergreen" as the finest main crop Sweet Corn. The flavor and sweetness have not been excelled and the extreme whiteness of the large ears makes it very beautiful and valuable for canning. It is large and the stalks produce more ears than any other variety and have a very heavy husk over the grains, protecting them from insects and keeping the ear fresh a long time after cutting.

"Oregon Evergreen" is a hardy, vigorous grower and is the ideal Corn for market gardeners.

Pkt., 10c; lb., 30c; 10 lbs., \$2.50

Livingston's Early Sugar

A grand "dry weather" corn that will stand severe drought—the stalks remaining green and ears filling well even in the driest years. In favorable seasons it will produce ears fit for table in 60 days from planting. Ears averaging 7 inches long contain from 12 to 14 rows of deliciously sweet, pure white kernels on white cob

Pkt., 10c; lb., 25c; 10 lbs., \$2.00

Early Minnesota

This old and deservedly popular variety is one of the best early sorts for the market and the private garden

Pkt., 10c; lb., 25c; 10 lbs., \$2.00

Stowell's Evergreen

Remarkable for remaining a long time in a fresh condition suitable for the table. Hardy and productive, and the best late variety for general use.

Pkt., 10c; lb., 25c; 10 lbs., \$2.00

THE RICH FLAVOR AND SWEETNESS OF CORN DISAPPEAR QUICKLY AFTER GATHERING AND TO BE AT ITS BEST SHOULD BE USED AT ONCE.

Remember

SUGAR CORN—Continued

Early White Cory

MAMMOTH

The stalks are no larger than those of the "White Cob Cory," but each stalk furnishes two or more large, fine-shaped ears, which are fit for use before those of most other sorts. The ears are 12-rowed, very symmetrical and handsome. The grain is large, broad, very white and of remarkably good quality.

Pkt., 10c; lb., 20c; 10 lbs., \$1.50

BLACK MEXICAN

An old favorite still in good demand on account of its quality and sweetness. A good variety for home gardens. Pkt., 10c; lb., 20c; 10 lbs., \$1.50

For the CORN EAR WORM

DUST "CORONA DRY" ON THE NEW SILK as soon as it appears.

"Garden Pests and Their Control" mailed free on request.



Black Beauty

EGG PLANT

Should be started in a hotbed and transplanted when the weather is settled and the ground thoroughly warm. They will thrive with the same treatment as that given the tomato.



Black Beauty

An extra early, quick-growing, vigorous variety, handsome and very uniform. Color, deep blackish purple. Splendid market sort.

Pkt., 10c; oz., 50c; $\frac{1}{4}$ lb., \$1.50; lb., \$6.00

New York Improved, Large Purple

The leading market variety. Large, round, dark, excellent and the most productive.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., \$1.00

GARLIC

CULTURE—Garlic is a profitable crop if your soil is right and proper methods of culture are employed. The sets are planted in the same manner as "Multiplier Onions," dividing the little clump, planting each bulbil thick end down, being careful not to bruise them as they will rot if injured. October is the planting month in Western Oregon.

A medium loam soil containing a little sand and well-drained is best and commercial fertilizer should be used. Deep and thorough preparation of the soil is necessary.

Plant in rows 14 inches apart—sets 4 inches apart in the row. It requires 175 to 200 lbs. to plant an acre. When approaching maturity, the tops die down and are not removed but used to braid the Garlic together for hanging up and convenience in handling. An acre should produce from two to four tons.

Price per lb., 20c; postpaid, 30c.
Write for quotation on large lots.

ENDIVE

This is a hardy vegetable, cultivated principally for a Winter salad. Sow from May until August for a succession of crops; tie the leaves closely together to blanch them.

Broad Leaved Batavian (Escarolle)

Has broad, thick leaves, which form a large loose head.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c

White Curled

A beautiful variety, with curled, mossy leaves, for early use.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c

Green Curled

Standard sort for Fall and Winter.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c

Horse Radish Roots

For prices and description, see Plant Department



Kohl Rabi

Hardy and of easy culture. Grown from plants the same as cabbage. The Kohl Rabi is a vegetable intermediate between the cabbage and turnip and combines the flavor of both. The edible part is a turnip-shaped bulb formed by the swelling of the stem. Kohl Rabi is far superior to cabbage or turnips in the delicacy of its flavor, and is a splendid addition to every garden. It should be eaten before growth ceases.

Early White Vienna

Very early; bulb white; best table variety.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 65c

Early Purple Vienna

Same as above, except in color, which is purple.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 65c



Herb Seeds--Sweet, Pot and Medicinal

Every garden should contain a collection of Herbs for flavoring and medicinal purposes. They are almost a household necessity; are easily grown, and many of them are very ornamental.

CULTURE.—Herbs in general delight in rich, mellow soil. Those marked with an (*) are perennial, and when once obtained in the garden may, with a little attention, be preserved for years. Sow the seeds early in the Spring in shallow drills, one foot apart. We offer some of the most useful and popular. They should be cut on a dry day, just before they come into full bloom, and tied in bunches and hung up or spread thinly on a floor where they can dry quickly. When dry and crisp, rub fine and bottle.

All the following Herbs, 5c per Packet. Except where noted

	Oz.	1/4 lb.	Oz.	1/4 lb.	
ANISE. —Seeds have useful medicinal properties; also used for flavoring	15c	\$0.25	LAVENDER. —By distillation produces the well-known Lavender water, the flowers for perfuming wardrobes, etc.	25c	\$0.75
BALM. —Used for culinary purposes and for making Balm Tea	25c	.65			
BASIL. —Used for seasoning soups, having a decided flavor of cloves	15c	.45	MARJORAM. —The Sweet aromatic leaves in either a green or dry state are used for flavoring	20c	.65
BORAGE. —Excellent for bees, flowers are also in request for garnishing	15c	.40			
CHIVE. —Has mild onion flavor; grows in grass-like clumps; much used for flavoring. Pkt., 10c	30c		PENNYROYAL. —Used medicinally Pkt., 10c		
CORIANDER. —Seeds used in confections; leaves for soups and salads. Very aromatic	15c	.25	PEPPERMINT. —For flavoring. Pkt., 10c		
CARAWAY. —For flavoring, the seeds being used extensively by bakers and confectioners	10c	.25	ROSEMARY. —Infusions of the leaves are used in medicinal beverages. Produces an aromatic oil	35c	
CATNIP. —(Cat Mint.) Pkt., 10c	40c	1.00			
DILL. —The flower heads and seeds are used in soups, stews and pickles; leaves have same flavor and can be used in like manner	10c	.25	RUE. —Leaves are used in medicine, also for croup in poultry	30c	.75
FENNEL. —For garnishing and fish sauce	10c	.25	SAGE. —The leaves and tender tops are used in stuffings and sauce; also in the beverage known as Sage Tea	15c	.60
FENUGREEK. —For flavoring	10c		SAFFRON. —Used for flavoring	15c	
HYSSOP. —Used medicinally	25c	.75	SAVORY. —Summer—Used for flavoring	25c	
WORMWOOD. —Used medicinally as a cure for colds	20c		SAVORY. —Winter	25c	
			THYME. —Broad leaved, used in soup, stuffing and sauce. Pkt., 10c	45c	1.25
			WORMWOOD. —Taken as a tonic in the form of tea	25c	
			TANSY. —Used medicinally, as tea and bitters. Pkt., 10c	35c	

HERB SEEDS FOR FLAVORING

Anise

Anise Anise seed for flavoring. $\frac{1}{2}$ lb., 15c; 1 lb., 40c

Coriander

Coriander
Coriander seed for flavoring.
1 lb. 10c. 1 lb. 20c. 100 lbs. market price

., 30c: 100

Poppy Seed used for flavoring. $\frac{1}{4}$ lb., 15c; 1b., 45c

Mustard

For flavoring and pickling.
Lb., 20c; postpaid, 30c; 100 lbs., market price

Caraway

We keep constantly on hand a large stock of well preserved seed for the use of Druggists, Bakers and Confectioners.

1/2 lb., 10c; 1 lb., 35c; 100 lbs., market price

Dil

Used to flavor soups, stews and pickles. The leaves possess similar qualities, and can be used in the same manner as the seeds. **1/2 lb., 20c; 1 lb., 45c**

Celery

For flavoring. Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 65c

FOREIGN NAMES OF HERBS

A Stands for Annuals or those generally used for such B For Biennials P For Perennials

A - STANDS FOR HERBALS OR PLANTS GENERALLY USED FOR SOUP.		B - FOR BISCUITS.		C - FOR PASTRIES.	
ENGLISH	FRENCH	GERMAN	ITALIAN		
A Anise	Anis	Anis	Anacio		
P Balm	Melisse-Citronelle	Citronen-Melisse	Melissa		
A Basil	Basilic-grand	Basilikum	Basilice		
A Borage	Bourrache	Boretsch	Boragine		
A Caraway	Cumin des prés	Feld-kümmel	Carvi		
P Catnip	Cataire	Katzenminze	Cataria		
A Coriander	Coriandre	Koriander	Coriandorio		
A-B Dill	Aneth	Dill	Aneto		
P Fennel, Sweet	Fenouil	Fenchel	Finochio		
A Fenugreek	Fenugrec	Bockshornsamem	Foenungrasciue		
P Horehound	Marrube Blanc	Andorn Kraut	Marrubio		
P Hyssop	Hysoppe	Isop	Isopo		
P Lavender	Lavende	Lavendel	Lavanda		
A-B-P Marjoram, Sweet	Marjolaine	Majoran	Maggiorana		
P Mint, Common	Menthe des Jardins	Münze	Menta		
P Rosemary	Romarin	Rosmarin	Rosmarino		
P Rue	Rue	Raute	Ruda		
P Sage	Sauge	Salbei	Salvia		
A Saffron	Safran	Safran	Zafferano		
P Sorrel	Oseille	Sauerpflanze	Acetosa		
A Savory, Hur. &c.	Barrette	Bohnenkraut	Santoregia		
P Tansy	Tauasie	Gemeiner Retschorn	Atanasia		
P Thyme	Thym	Thymian	Timo		
P Wormwood	Absinthe	Wermuth	Assenzio		

We Supply Herb Plants in Most Varieties in Season. See Plant Dept.

KALE

Emerald Isle Finest Kale in the World

This is really the handsomest Kale that has ever come under our notice; and is entirely distinct from other strains, very hardy, of medium height, and very vigorous, throwing out new shoots as fast as the leaves are used, and will furnish excellent greens all winter. The closely curled, handsome leaves are most attractive and of fine flavor. A fine exhibition plant. We offer Oregon grown seed.

Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 25c

Tall Green Curled Scotch

Grows about two feet high; leaves dark green, curled and wrinkled; very hardy and is improved by a slight frost.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c

HALF DWARF MOSS CURLED. — Medium sized leaves, nicely curled.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c

DWARF GREEN CURLED. — Leaves beautifully curled and bright green.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c

LEEK

The Leek belongs to the Onion family. Prized for soups. Cultivation similar to that of Onions, but should be killed up about the neck to blanch it.

Large Rouen, or American Flag

A large, favorite American sort.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 50c; lb., \$1.50

MUSTARD

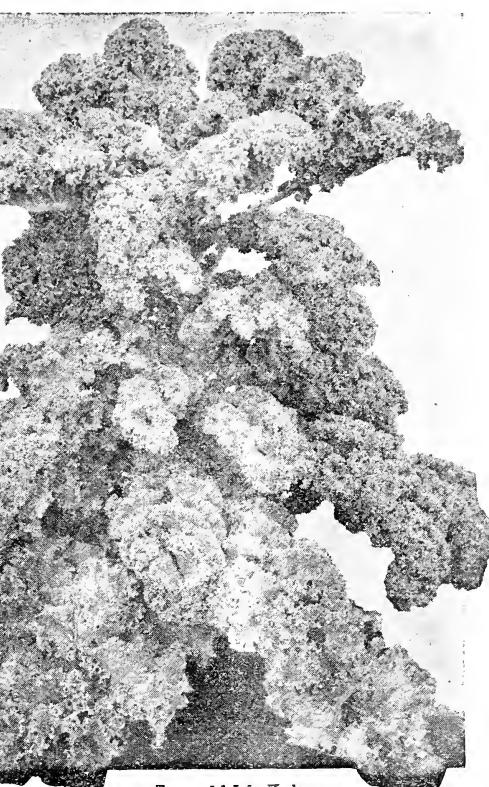
Mustard is used alone as "greens," or with cress as salad. Sow any time in the Spring, in rows, and thin out as necessary.

SOUTHERN GIANT CURLED. — We offer a fine strain of the true curled leaf.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 15c; lb., 50c

WHITE ENGLISH. — Leaves mild, tender when young; seeds yellow.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 15c; lb., 40c



Emerald Isle Kale

FORDHOOK CURLED. — Beautiful dark green, finely curled plume-like leaves that are of distinctive flavor; superior to spinach as greens and is fine for salads. "Fordhook Curled" is vigorous and productive.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 90c

CHINESE MUSTARD. — Less pungent than other varieties. Chinese Mustard is most delicious, thriving at the same season and under conditions that are favorable to spinach. A splendid addition to our gardens.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 15c; lb., 45c.

Mushroom Spawn

With intelligent care and good spawn, Mushrooms can be made to pay handsomely. They can be successfully grown in a dry cellar, under the benches of a greenhouse, or in sheds, where the temperature can be kept from 50 to 60 degrees through the Winter. Our free pamphlet gives general instruction.

Lambert's Pure Culture

A new kind of spawn, without a doubt the best; much superior to the common English. It comes in bricks, weighing about 20 ounces. These are broken up into pieces the size of a walnut and put into the bed one foot apart each way. A brick will plant 10 sq. ft.

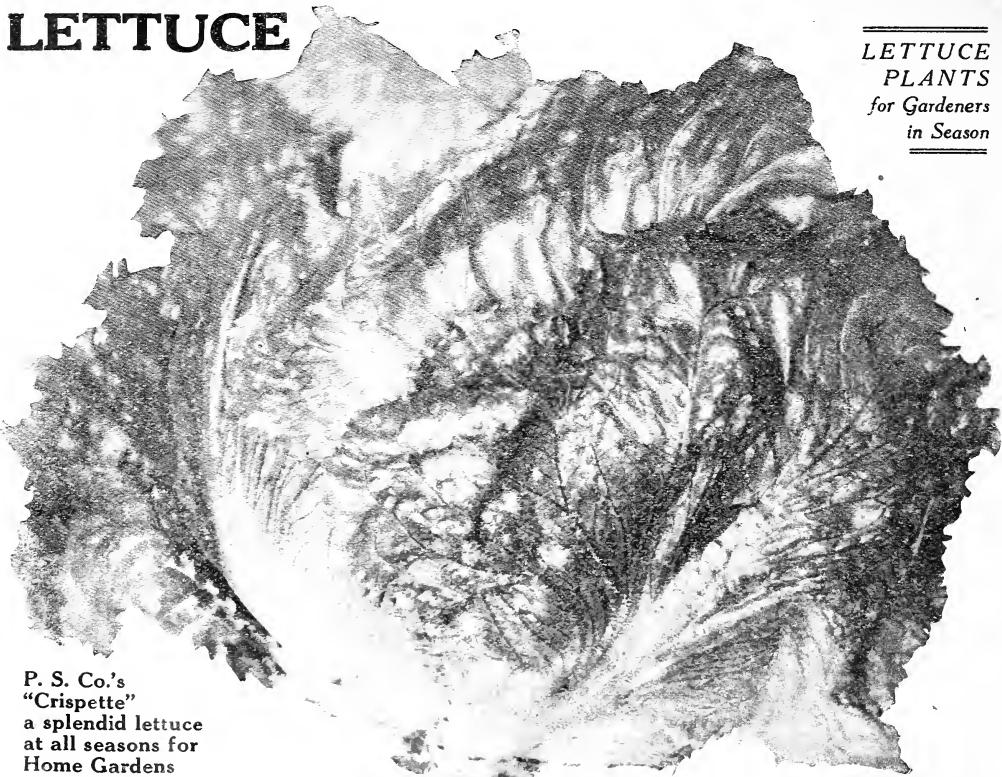
Price, per brick, 25c; postpaid, 40c; by express, not prepaid, 5 bricks, \$1.00



MUSHROOMS. How to Grow Them. By Falconer. 162 pages. Postpaid \$1.10
MUSHROOM CULTURE and Pure Culture Spawn. 32 pages. Postpaid 35c



LETTUCE



P. S. Co.'s
"Crispette"
a splendid lettuce
at all seasons for
Home Gardens

LETTUCE is so extensively grown that cultural directions seem unnecessary, but we offer a few simple suggestions that may save a later disappointment, as any failure is generally blamed to the seed. This should not be, as Lettuce, like many other vegetables, requires very rich soil, plenty of water, a cool growing season and intense culture to produce the best results. If the earliest varieties are planted out in the Spring, and the weather turns dry and hot, they will run up to seed without heading. The same seed sown in the Fall or with cooler growing weather would develop perfectly. At a temperature of 40 degrees or lower lettuce will not thrive. At 65 degrees and upward it has a tendency to run up and not head properly. For outside planting sow the seed in shallow drills from one to two ounces to the 100 yards. An ounce will produce 3,000 plants. Four pounds should plant an acre. Lettuce matures in forty to sixty days from time of planting.

Portland Seed Company's Crispette

Our "New Crispette" is a beautiful lettuce, the quality of which is simply perfect. The large, curly leaves, which cover the outside of the solid heads, are of a bright, light green. The unusual solidity of the heads is insured by the large, white main ribs of the leaves, each of which curving strongly toward the center, makes it impossible for the leaves to open outward and expose the center, which will always be found crisp, tender, sweet and melting. It matters not whether grown to head in the early Spring or the hottest days of Summer, the leaves are always **crisp and tender**.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 35c; lb., \$1.25

May King

A large growing, smooth leaved, richly flavored sort. Plant, light green, with round leaves, which form into a very solid, compact, round head; stands a long time without running to seed. Inner leaves blanch to a rich, golden yellow. **Exceedingly rich, tender and buttery.** Fine for open ground or forcing. For succession plant in Spring, then in August and again in September.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 35c; lb., \$1.25

LETTUCE
PLANTS
for Gardeners
in Season

Grand Rapids—For Early Forcing

As a Lettuce for greenhouse forcing, this variety undoubtedly stands at the head of the list. Of quick growth, and stands for some days after being fit to cut. The plant is upright, and forms a loose head or cluster of large, light yellowish green leaves, slightly crimped and blanched, rather thin, good flavor, crisp and tender. It will stand shipping better than most curled sorts.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 35c; lb., \$1.25

All Seasons

A valuable new "Butter Head" Lettuce; the best main crop variety, as its large heads continue to grow for two or three weeks after they are ready to use, and are very slow to seed.

"All Seasons" is headed up ready for use in less than ten weeks from planting. Color of outer leaves is a bright green, with inner leaves blanched a rich golden yellow; very crisp and of excellent flavor. Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 35c; lb., \$1.00

Large Drumhead

One of the largest heading kinds, but the heads are not so solid as the "Hanson" or "Deacon."

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 30c; lb., \$1.00

DIAMOND FERTILIZERS WILL FORCE LETTUCE EARLY — MAKE BIG SOLID HEADS — TELL US whether you are growing under glass or outside and we can tell you what fertilizer is best, and how to use it profitably — FERTILIZER BOOK FREE—ASK FOR IT.



LETTUCE—Continued

**New York or Wonderful****The Best Head Lettuce for Market Growers**

This is the mammoth head lettuce so popular in California, from whence it is shipped to the Northern markets, arriving in splendid condition. The immense heads are solid, heavy, beautifully blanched to a creamy white with bright green outer leaves. The quality is unsurpassed, being tender, crisp and sweet. "New York" is a hardy, rapid grower, deep rooted and resistant to drought; a slow seeder and sure to head.

Pkt., 5c; oz., 15c; ¼ lb., 50c; lb., \$1.50

Deacon

Heads very solid and of excellent flavor, remains in condition for use as long as any variety in cultivation. Plant medium sized, with very few outer leaves, which are deep green and very thick, while the inner ones blanch to a bright yellow and are exceedingly well flavored, crisp and tender. This is certainly one of the best varieties for Summer use.

Pkt., 5c; oz., 15c; ¼ lb., 30c; lb., \$1.00

Early Prize Head

Standard sort; one of the best thin leaved, clustering varieties. The very large leaves are savoyed or crimped, bright green, tinged with red, and are exceedingly tender, crisp and sweet, forming a large, loose head. One of the best for the garden, but not good to ship long distances.

Pkt., 5c; oz., 15c; ¼ lb., 30c; lb., \$1.00

Hanson**Improved Hard Heading Stock**

One of the very best. Heads green outside and white inside; grow to a remarkable size, very solid, and is deliciously sweet, crisp and tender. It withstands the hot sun well.

Pkt., 5c; oz., 15c; ¼ lb., 35c; lb., \$1.25

**Simpson's Early Curled**

A leading market variety used for very early planting and forcing. Forms a dense mass of finely curled and wrinkled leaves that are excellent and tender, and do not wilt readily.

Pkt., 5c; oz., 15c; ¼ lb., 30c; lb., \$1.00

Black Seeded Simpson

Forms a close, compact mass of curly leaves of a yellowish green.

Pkt., 5c; oz., 15c; ¼ lb., 30c; lb., \$1.00

Early Tennis Ball

The plant is small, of rapid growth, and should be used as soon as large enough, as it quickly runs to seed. Leaves dark green, thick and crisp. One of the best for growing under cover, and for forcing.

Pkt., 5c; oz., 15c; ¼ lb., 30c; lb., \$1.00

Brown Dutch

Forms a large, solid head, sweet, tender and of good flavor. Outer leaves are tinged with brown. Very hardy.

Pkt., 5c; oz., 15c; ¼ lb., 35c; lb., \$1.25

BEST OUT OF 5 VARIETIES

Gentlemen:

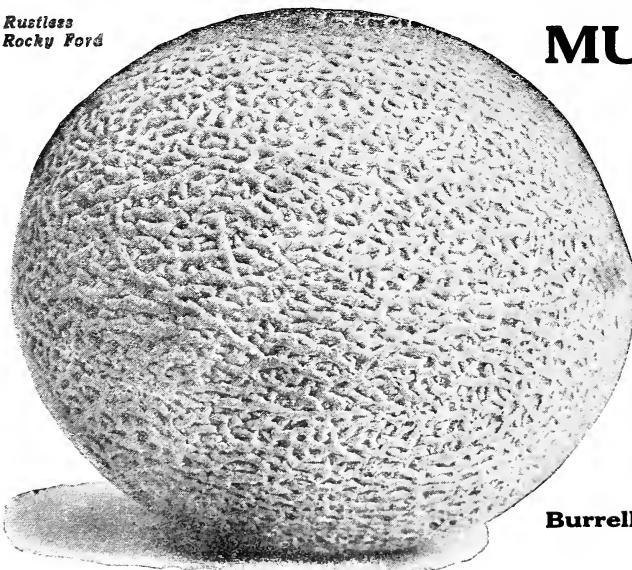
I used "Crispette" and "New York Wonderful" Lettuce Seed for early planting and they are both the best I tried among 5 varieties from elsewhere.

Twin Falls, Idaho

O. T. FULLER



Rustless
Rocky Ford



Burrell Gem

The Perfect Melon for Market or Home Gardens

"Burrell's Gem" has a tough, thin rind, well arched ribs, covered with a closely interlaced gray netting; shape elongated, being about $4\frac{1}{2}$ inches in diameter by 6 inches long, flesh of a reddish orange, very thick, fine grained and spicy, seed held firmly in a triangular cavity. This is the secret of a good shipping melon. If the seeds shake loose easily a melon will quickly decay.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 35c; lb., \$1.00

Rocky Ford or Netted Gem

The most popular and best seller among Musk-melons. The fruit is oval, slightly ribbed, densely covered with coarse netting. Flesh thick, green, very sweet and highly flavored. The fruit is wonderfully uniform in shape and quality. Grown largely in Colorado and shipped in carload lots all over the country. The favorite with market gardeners everywhere.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Osage, or Miller's Cream

One of the finest flavored melons in cultivation, and highly recommended. The flesh is of a rich salmon color, very sweet and melting in quality.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Well-Known and Popular Varieties

	Pkt.	Oz.	$\frac{1}{4}$ lb.	Lb.
JENNY LIND.—Extra early, flesh green, fine flavor.....	5c	10c	25c	75c
EXTRA EARLY HACKENSACK.—Flesh green, delicious, juicy and sweet; medium size.....	5c	10c	25c	75c
LARGE YELLOW CANTALOUE.—Early and productive; flesh salmon color, rich, sweet.....	5c	15c	35c	\$1.00

MUSKMELONS

CULTURE.—Plant in hills four to six feet apart each way, after danger of frost is past and ground is warm; enrich well with well-rotted manure and plant the seeds just under the surface, not too deep. One ounce to fifty hills; two to three pounds per acre.

Melons thrive best on warm, light soils, but good crops are obtained on heavy ground if it is rich and well drained; in cultivating, hill up by drawing the soil toward the plant.

Use Bug Death, lime, slug shot or land plaster for destroying insects.

Burrell's Rustless Rocky Ford Cantaloupe

See Cut

This new melon, the highest development of the "Rocky Ford" type, has light green flesh which is very deep, rich and delicious, the quality being unsurpassed. It is solidly netted, thrifty, vigorous, rust resistant and a continuous bearer until frost. Ninety-five per cent of the seed crop were choice, standard size melons.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 35c; lb., \$1.50

Emerald Gem

The superior quality of "Emerald Gem" makes it most desirable for home gardens. The flesh is very thick, of a dainty salmon color, and the flavor is the finest and sweetest of all melons. The skin is smooth and of a deep emerald green; rind thin; it bears early and is very prolific.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 35c; lb., \$1.00

Small Green Nutmeg

A variety ripening early. Flesh, green, fine and sweet. Superior for the early market, or family garden, and a favorite for hotels and restaurants.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Paul Rose, or Petoskey

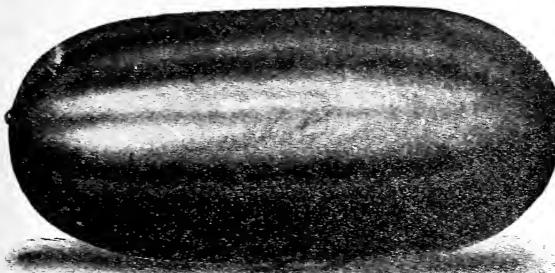
Created by a cross between the "Netted Gem" and "Osage"; fruit oval, about five inches in diameter, rich orange in color, sweet and highly flavored.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 35c; lb., \$1.00

FOR THE MARKET GARDENER—“Earliest of All Potatoes” can be ready for use in early June from March planting. They have been marketed in eight weeks from planting. The vines die down and the ground can be used again the same season **SEE PAGES 32 AND 33.**

WATERMELONS

CULTURE.—Watermelons thrive best on light, well-drained soils, but give good results on any good rich garden soil that is properly drained and cultivated. Plant after the weather is settled and ground warm. Hills should be eight feet apart each way and with well rotted manure thoroughly worked into each hill. One ounce of seed will plant thirty hills; two to three pounds per acre. Thin to two or three plants per hill.



Tom Watson

This excellent new melon is of elongated form, averaging 18 to 24 inches in length, 10 to 12 inches in diameter, has a thin, dark green rind and deep red flesh; crisp and sugary, with a lusciousness and distinctive flavor that makes it one of the finest melons ever produced; is hardy, early and stands handling and long shipment. We consider it a valuable market or home variety.

Pkt., 5c; oz., 15c; ¼ lb., 35c; lb., \$1.00

Halbert Honey Watermelon

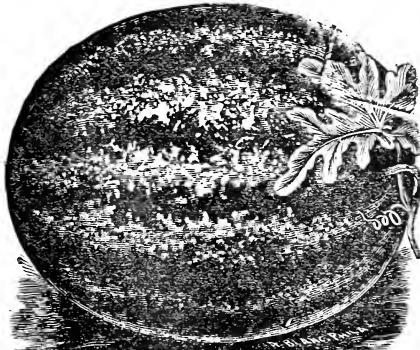
This superb Melon is a great improvement over the well-known "Kleckleys Sweet," as it fully equals it in delicious flavor and crispness, is more uniform in outline, darker in color, more vigorous and productive, and will ripen perfectly in the cooler sections where other varieties fail. The average length is eighteen to twenty inches, both ends being blunt and fully rounded out. The rich, dark, glossy green, the thin rind and the bright crimson make the new "Halbert Honey" the most attractive Watermelon.

Pkt., 5c; oz., 15c; ¼ lb., 35c; lb., \$1.00

Kleckley's Sweet, or Monte Cristo

A splendid sort for home use or near markets. Vine vigorous and productive; fruit of medium size; oval; color dark, mottled green in two shades, forming indistinct stripes. Flesh a beautiful bright rich red; exceedingly sweet and tender.

Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 65c



Sweet Heart

This melon has become very popular as a shipping melon. Vine vigorous and productive, ripening its fruit early. Fruit large, oval, very heavy, uniformly mottled dark and very light green; rind thin, but firm; flesh bright red, firm, solid, but very tender, melting and sweet. Fruit retains its good quality for a long time after ripening.

Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 60c

Cuban Queen

A very fine variety, growing to a great size; flesh bright red, solid and sweet. The skin is beautifully striped dark and light green. Melons are wonderfully solid; rind thin. They are enormously productive and ripen early.

Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 60c

Ice Cream, or Peerless

A grand favorite and standard variety. Superior in every respect. Has beautiful crimson core, which is always fine grained; can not be surpassed in flavor; very prolific.

Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 60c

Fordhook Early

A fine extra early melon. Fruit of good size; skin dark green; flesh bright and crisp, sweet and good quality; rind thin, but tough. Good shipper.

Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 60c

Well-Known and Standard Varieties

DARK ICING.—Early, round, solid, with thin dark green skin; of superb quality. 5c
FLORIDA FAVORITE.—Large and long; rind firm; flesh deep red..... 5c
PHINNEY'S EARLY.—Early, hardy; flesh pink; very sweet, tender and crisp... 5c
CITRON.—(Red or Green Seeded.) Round and handsome; for preserving only.. 5c

Pkt.	Oz.	¼ lb.	Lb
5c	10c	20c	60c
5c	10c	20c	60c
5c	10c	20c	60c
5c	10c	25c	75c

“Some Gain”

Gentlemen:

The seeds were received by me in splendid condition. I saved \$16.00 by sending to you.

This is some gain. (Signed) John Cottell

“For the Past 15 Years”

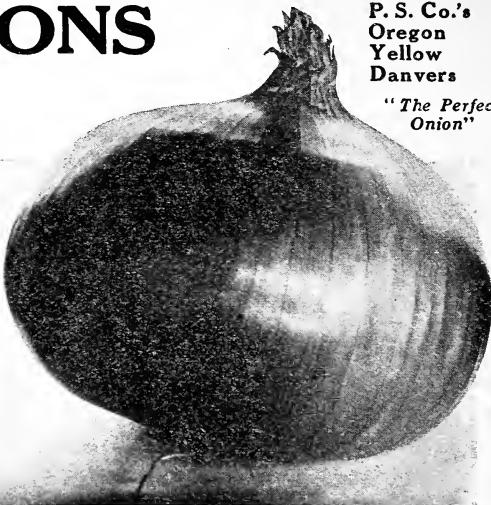
Gentlemen:

I have used your seeds for the past fifteen years and find them very good.

(Signed) Mrs. O. Martin



ONIONS



P. S. Co.'s
Oregon
Yellow
Danvers

"The Perfect Onion"

WE are large growers of Onion Seeds and Sets, and for years have been specializing on varieties that attain their greatest perfection in the Northwest and believe in our "OREGON YELLOW DANVERS" we have the finest type of Danver Onion ever offered, and recommend it to all commercial growers.

CULTURE.—For best results in Onion growing, the soil should be deep and rich, bottom land of rather loose texture being preferred—(beaverdam soil is best).

Sow $2\frac{1}{2}$ or 3 lbs. of seed per acre, as early in the season as the ground can be put into proper condition, using some good fertilizer such as our special Onion Fertilizer, or manure supplemented with Bone Meal, Muricate of Potash, and in some cases Nitrate of Soda, the latter often being used after the plants are up, while the other fertilizers are worked into the soil before the seed is sown. Hardwood ashes may take the place of the Muricate of Potash.

Thorough clean cultivation and thinning during the growing season is necessary.

In the Fall the tops of the Onions will naturally fall to the ground and shrivel up and the roots let go their grip on the soil, when the Onions should be lifted and allowed to dry off for a day or two before storing away. If the weather remains too wet to dry off in the fields, the Onions may be put under open sheds for a while where there is a good circulation of air.

In case the tops do not die off naturally, they may be broken down and so cause the bulbs to ripen quicker, but such Onions will not make good keeping bulbs, and should be disposed of as soon as possible.

To be sure of a good crop, sow none but the best of seed—it may cost a little more than a cheaper grade of seed, but it is worth more than the difference in the price.

Portland Seed Co.'s Oregon Yellow Danvers

This is the variety generally planted in the Northwest. The largest crops of onions and the best keepers, bringing the highest prices on the Pacific Coast markets are the **Oregon Yellow Danvers**. **The bulbs are uniformly large, of a half-globe in shape, with small necks**, and as a market or table onion can not be excelled.

Our seed is grown specially for us by the best onion seed growers in Oregon. No onion grower can afford to plant anything inferior when such seed can be obtained. **Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 75c; lb., \$2.50** Sow as soon as ground can be prepared in the Spring. Give clean culture. An ounce of seed should drill 150 feet—3 to 4 lbs. per acre. *If you contemplate a large planting, write us.*

Australian Brown

This onion resembles the Oregon "Yellow Danvers" in general appearance, but has a clear, amber-brown skin that attracts buyers. It matures early, ripens uniformly, and will keep in good condition longer than any other onion. For late sowing and when necessary to replant. Australian Brown heads the list.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 60c; lb., \$2.00

Prizetaker—The Genuine The Handsomest and Largest Yellow Globe Onion

Of fine flavor, handsome shape and enormous size. A perfect globe shape, with a bright straw-colored skin; the necks are very small and the onions always ripen up hard. A good variety for transplanting, which is sometimes necessary to secure a crop especially on upland.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 60c; lb., \$2.00

DIAMOND ONION FERTILIZER 1000 Pounds to the Acre

Our Free Book "FERTILIZERS" tells things you should know about fertilizers—gives analyses, values and crop requirements—tells what fertilizers are and how to use them.



ONIONS—Continued

“Bunching” Onion

This variety is especially useful to market gardeners for producing an attractive “green onion.” The young stalks are crisp and mild, attaining a good size before the bulb forms.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 60c; lb., \$2.00

Large Red Wethersfield

A standard variety; one of the most productive kinds, even in poor soil. Its good keeping qualities render it one of the best for shipping.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 60c; lb., \$2.00

Yellow Globe Danvers

A very handsome, round or globe-shaped variety of large size, with thin, yellowish skin, white flesh, fine grained, mild, very firm, and the best of keepers. It ripens early.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 60c; lb., \$2.00

White Portugal or Silver Skin

Skin and flesh pure white; mild flavor and flat shape; grown largely for sets.

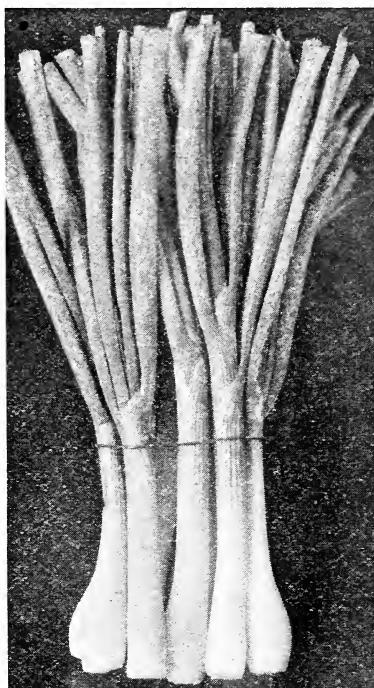
Pkt., 5c; oz., 30c; $\frac{1}{4}$ lb., 75c; lb., \$2.50

OUTYIELDS ALL OTHERS

Gentlemen:

I am well satisfied with the seed I get of you and have not had a single packet fail to grow. Also your Oregon Yellow Danver Onions have out-yielded all other kinds I have tried so far.

(Sgd.) Michel S. Haley.



Bunching Onion

Well-Known and Popular Onions

	Pkt.	Oz.	$\frac{1}{4}$ lb.	Lb.
YELLOW FLAT DANVERS. —Largely planted. Flesh fine grained; mild; white; good keeper.	5c	20c	60c	\$2.00
EXTRA EARLY BARLETTA. —A small, pure white, mild onion; fine for pickles.	5c	20c	60c	2.00
GIANT ROCCA. —Large, globe-shaped; skin reddish-brown; flesh mild, sweet flavored.	5c	20c	60c	2.00
MAMMOTH SILVER KING. —Very large and attractive; skin white; flesh fine grained and mild.	5c	20c	60c	2.00
QUEEN. —If sown thickly, produces small, very firm bulbs, the best of all for pickling; if given more room, matures an excellent onion, that will keep all Winter.	5c	20c	60c	2.00

Onion Sets—Pound Prices Postpaid**Bottom Onion Sets**

Small onions grown from seed that has been sown too thickly to attain a large size. The small onions (about $\frac{1}{2}$ inch in diameter) thus obtained are planted out and are ready in a short time to pull as green onions for the table or bunched for the market. If left to stand they make ripe onions of the best quality, and come to maturity some six weeks earlier than a crop grown directly from the seed.

Per lb., 25c

For Garlic see page 19.

Top Sets

Produced in clusters.

Per lb., 25c

Shallots

Valuable for bunching or for an early crop. The smallest sets make fine bulbs of good size, while the larger ones produce a cluster of small to medium-sized bulbs. Light brown skin; mild, white flesh.

Per lb., 30c

Bottom Multiplier

Potato Onion Sets.

Per lb., 30c

Okra or Gumbo**White Velvet**

The pods are smooth or very slightly ribbed. Large; remain tender a long time.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 60c

Improved Dwarf Green

Very early, with long, green, slender pods.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 60c



"Diamond
Quality"

PORTLAND SEED COMPANY'S

GARDEN PEAS

Selected,
Hand Picked

For single lbs. by mail add 10c postage—Larger lots at parcel post rates
10c pkts. are postpaid.



Little Marvel

GARDEN PEAS are one of the most important crops, and we have spared no effort to select and improve the best strains of the most profitable and satisfactory varieties. These selected strains, grown under our direct supervision for many years, will give you the biggest yield and the handsomest, sweetest, best flavored Peas for early market or home garden. The varieties offered have proved by growing tests to be the best of their kind and class.

Extra Early Peas

Little Marvel

A Splendid New Dwarf Pea for Home or Market

The dwarf, bushy vines averaging 15 inches are loaded with firm, square-ended pods 2 1/2 to 3 inches long, tightly filled with plump, luscious, deep green peas. "Little Marvel" is as early as "American Wonder," fully equals the superb quality of "Nott's Excelsior" and far outyields these two popular sorts. **Pkt., 10c; lb., 20c; 10 lbs., \$1.75**

Blue Bantam

Extremely early, "Blue Bantam" excels in the size of pods and quality of the sweet large dark green Peas with which they are filled, and is said to surpass all extra early dwarf varieties in yield. Very dwarf and hardy.

Pkt., 10c; lb., 20c; 10 lbs., \$1.75

New—Richard Seddon

A dwarf English Pea of the finest quality; very early. Has large shapely pods well filled. Is sweet and delicious. A hardy, prolific Pea of the greatest merit. As early as American Wonder and far more prolific. Try it.

Pkt., 10c; lb., 20c; 10 lbs., \$1.75

Alaska or Earliest of All The Standard Extra Early Variety

A smooth, blue pea, of even, vigorous, growth and extra early maturity. Vines two to three feet high, unbranched, bearing four to seven long pods, which are filled with medium-sized, bright green peas of excellent flavor. A great favorite with our market gardeners for Fall or early Spring planting.

Pkt., 10c; lb., 15c; 10 lbs., \$1.25

"Finest Ever"

Gentlemen:

Your Earliest of All Potatoes are ready to dig. They are the finest early potato I ever saw and a good yelder. Producer is filling the earth with fine potatoes. Those two varieties have proven the best for us in this soil. We will report later.

(Signed) W. E. JOHNSON & EDE.

It's Easy to Inoculate
Peas and Beans with

FARMOGERM—Increases the Yield—Improves the Quality
Builds Up Your Soil—Garden size 50c.



Early Garden Peas—Continued

For single lb. by mail add 10c postage. Larger lots at parcel post rates. 10c packets are postpaid.

Laxtonian

A new, early, dwarf, robust, large podded pea of superior excellence; often referred to as "Dwarf Gradus," and is said to surpass "Gradus" in yield and quality, with the added advantage of dwarfer growth, averaging 16 inches. The large pods are well filled, holding 8 to 10 peas.

"Laxtonian" is so highly recommended that you should give it a trial.

Pkt., 10c; lb., 20c; 10 lbs., \$1.75

American Wonder

One of the most popular and best of the early wrinkled sorts. A great favorite for family use. Has stout, branching vines, covered with well-filled pods containing seven or eight large, exceedingly sweet, tender and well-flavored peas. Height 10 to 12 inches.

Pkt., 10c; lb., 20c; 10 lbs., \$1.50

Gradus

This extra early, wrinkled pea bears pods of large size and combines quality with earliness. It is very hardy; can be planted fully as early as the smooth peas; growth, vigorous and healthy; vines 2 1/2 feet in height; very prolific. The quality and flavor are delicious and the peas remain tender and sweet for a long time.

Pkt., 10c; lb., 20c; 10 lbs., \$1.75

Nott's Excelsior

The most desirable sort for the market gardener, and unequalled for the home garden. Very hardy. The pods contain from six to nine large peas, which are unusually fine flavored and tender.

Pkt., 10c; lb., 15c; 10 lbs., \$1.25

Premium Gem

One of the earliest dwarf varieties, coming in a little later than the "American Wonder;" grows taller, much more productive and continues in bearing longer. The quality of the pea is very superior. Height, 15 inches. Pkt., 10c; lb., 15c; 10 lbs., \$1.25

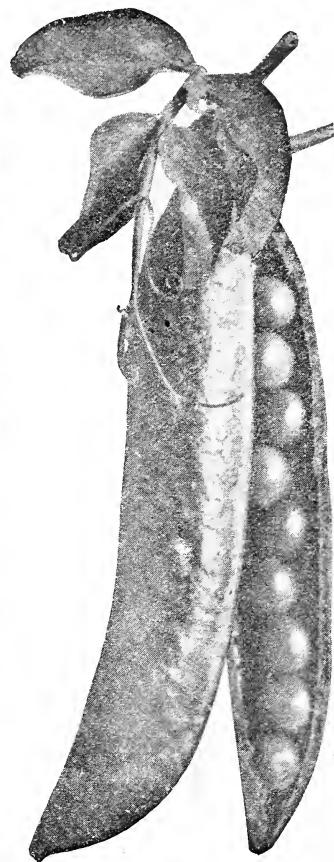
"FINE AND PURE"

Gentlemen:

I could buy Thomas Laxton from other seed houses but their seed has always proven very poor and badly mixed, while seed from the Portland Seed Company has always been exceptionally fine and pure. (Sgd.) PHILIP MARTIN.

Gentlemen:

Every seed you sent me, Peas, Onions, Spinach, Radish and Celery, came up and are growing fine. The Peas are just coming in blossom. It is a pleasure to have a garden when one has good seed. (Sgd.) CHARLES H. PAYSON.



Telephone

Main Crop Varieties

Telephone—Tall

A Great Favorite With Our Market Gardeners.

Immensely productive, of the finest quality and excellent, sugary flavor; vines strong; the pods are of large size, filled with large, luscious peas; height four feet. Pkt., 10c; lb., 20c; 10 lbs., \$1.50

USE FARMOGERM

ON GARDEN PEAS --- Insures the maximum yield and improves the soil. SEE FERTILIZERS

Improved Stratagem

One of the best of the large podded peas; the pods are of immense size filled with large, dark green, wrinkled peas of the finest quality; vine of medium height, but very stocky, with very broad, light green leaves, and bearing an abundance of large, handsome pods.

Pkt., 10c; lb., 20c; 10 lbs., \$1.50

Yorkshire Hero

One of the largest, sweet, wrinkled kinds; vines strong and spreading; pods of good size and well filled; much in use, and has enjoyed a long popularity; medium late; bears a long time; height, 2 1/2 feet. Pkt., 10c; lb., 15c; 10 lbs., \$1.25

Gentlemen:

I have dealt with you for four years and have always received the best of attention when I sent an order. I have also found your seeds and nursery stock true to name. I cannot praise you and your stock highly enough. I hope to trade with you for time indefinite and expect to receive the same treatment as in former years. (Sgd.) TEDDY HUTCHESON

Gentlemen:

My seeds arrived O. K., and are all planted, and doing well. Needless to say I am far, and away, more pleased with such treatment than the amount involved as it tends to show the strictly honest business method in vogue in the conduct of your business. FRANK CLARKE.

EXPECTS SAME TREATMENT

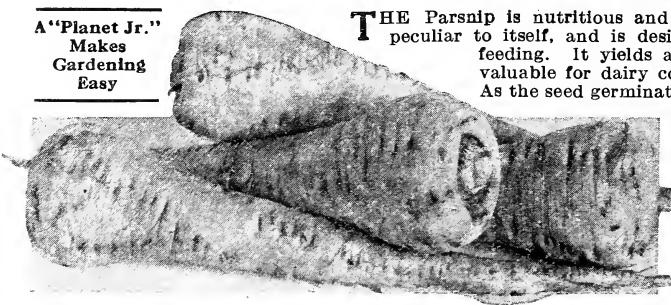


PARSNIPS

A "Planet Jr."
Makes
Gardening
Easy

THE Parsnip is nutritious and wholesome, with a sugary sweetness peculiar to itself, and is desirable both for the table and stock feeding. It yields a large crop, and is said to be more valuable for dairy cows than either the carrot or turnip. As the seed germinates very slowly, sow as early in Spring

as possible, in drills fifteen inches apart on deeply cultivated, rich, loamy soil. Keep clear of weeds and thin to three or four inches apart. The roots of the parsnip are improved by freezing.



Hollow Crown or Long White

Root very long, white, smooth, tender, sugary, and of most excellent flavor. Very hardy; will keep through the Winter without protection.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 50c

Early Half Long

Ready in 90 days. Medium sized, easily dug, has a fine rich flavor—good for home gardens.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 50c

Guernsey. Half Long

Root white, very tender, with a smooth, clear skin. Shorter and thicker than "Hollow Crown;" desirable for stiff soils. Requires about 120 days.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 50c

PARSLEY

Plain

Very useful for flavoring soups, meats and for garnishing. The green leaves are used for flavoring or they may be dried crisp, rubbed to a powder and kept in bottles until needed.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Extra Double-Curled

A fine, free growing, but not large variety. The plants bear a great number of leaves, which are so abundant and so finely curled that they resemble a bunch of moss.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Turnip-Rooted, or Hamburg

The root, which resembles a small turnip, is the edible portion of this variety. Extensively grown and used for flavoring soups, etc.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Champion Moss Curled

A compact growing, finely cut and much curled variety of a bright green color.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

PEPPER

Sow the seeds early in hotbeds; or later, when the weather becomes warm, in open beds. When two or three inches high, transplant to a warm, mellow soil, in rows eighteen inches apart and a foot apart in the rows. Guano and hen manure are excellent fertilizers and will greatly increase the yield.

NEW PERFECTION PEPPER.—Perfection is well named, as these perfect peppers are unequalled for quality and sweetness, are large smooth, with flesh 3 times as thick as in other varieties, and the skin can be slipped off by heating or boiling a little, or you can pare them like you would an apple. Growth is vigorous. Yield is heavy and continuous, bearing until frost.

Pkt., 10c; oz., 50c; $\frac{1}{4}$ lb., \$1.75.

CHINESE GIANT.—Sweet. The mildest and best of the mild red peppers. 4 to 5 inches in diameter; color, brilliant deep red; borne in clusters; bush stocky, well branched; vigorous and about as early as Ruby King.

Pkt., 10c; $\frac{1}{2}$ oz., 25c; oz., 40c; $\frac{1}{4}$ lb., \$1.25

NEW NOCERA.—A Giant Red Pepper of largest size; mild and very fleshy; a favorite English variety.

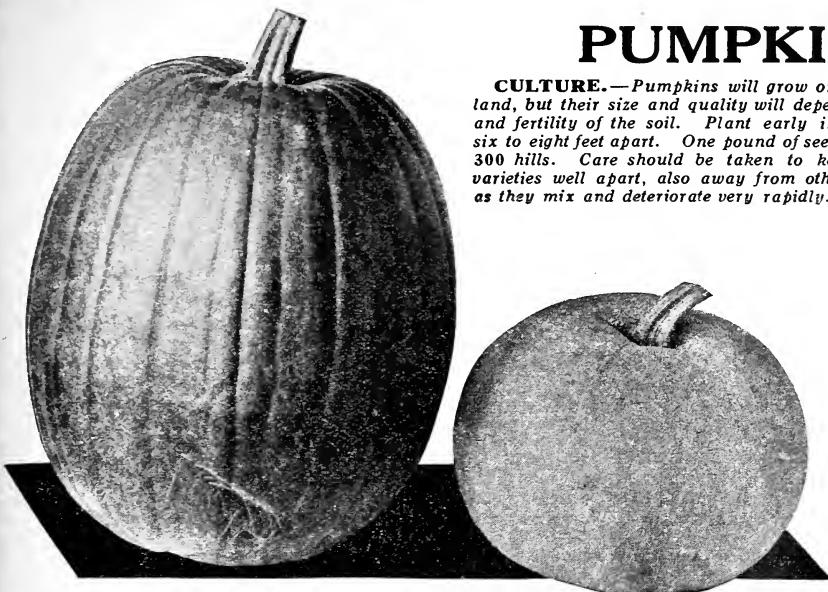
Pkt., 5c; oz., 35c; $\frac{1}{4}$ lb., \$1.00

	Pkt.	Oz.	$\frac{1}{4}$ lb.
RUBY KING. —Very large, sweet and mild; bright scarlet.....	5c	25c	75c
LARGE BELL, or BULL NOSE. —Large, mild, thick fleshed variety. One of the best for stuffed pickles.....	5c	25c	75c
GOLDEN DAWN. —Bright, golden yellow; very productive; entirely free from fiery flavor.....	5c	25c	75c
SWEET SPANISH, or MOUNTAIN. —Of the largest size, bright scarlet. Excellent for pickling and stuffing.....	5c	25c	75c
CAYENNE. —Pods long; bright red; very pungent and used very largely with pickles when green.....	5c	25c	75c
CHILI. —Pods small and pointed; brilliant scarlet; very pungent when ripe.....	5c	25c	75c



PUMPKIN

CULTURE.—Pumpkins will grow on any good farm land, but their size and quality will depend on the culture and fertility of the soil. Plant early in May, in hills six to eight feet apart. One pound of seed will plant about 300 hills. Care should be taken to keep the different varieties well apart, also away from other vining plants, as they mix and deteriorate very rapidly.



*Sweet or
Sugar and
Winter
Luxury
are good
Pie
Pumpkins*

Sweet, or Sugar

A handsome and productive small pumpkin; skin, orange; flesh, deep yellow, fine grained and very sweet. This is the famous "New England Pie Pumpkin."

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; 1 lb., 75c

Mammoth Tours

A productive French variety; grows to an enormous size. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 35c; 1 lb., \$1.00

Tennessee Sweet Potato

Pear shaped; flesh thick, cream white, fine grained and of excellent flavor.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; 1 lb., 65c

Large Yellow, or Connecticut Field

Large, round; deep, glossy yellow. Vines vigorous and very productive; good keeper. Grown extensively for stock feeding.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; 1 lb., 50c

Winter Luxury

The best flavored pie pumpkin grown; enormously productive; excellent keeper; medium size; color, golden-russet, finely netted; flesh, deep golden, sweet, tender and very thick; none better.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; 1 lb., 65c

Giant of All King of Mammoths

This colossal Pumpkin is almost a globe in shape. The skin is of a beautiful, rich golden yellow; flesh firm, fine grained and deep yellow, sweet flavored, very thick and of excellent quality for so mammoth a variety. These Pumpkins attain an enormous size and will carry away prizes at your county fairs.

Large pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 35c; 1 lb., \$1.00

Large Sweet Cheese

A popular variety. Fruit flattened; skin mottled light green and yellow. Flesh, yellow, thick, tender; very nutritious and of excellent quality; a most productive variety.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; 1 lb., 65c

Rhubarb or Pie Plant



CULTURE.—Rhubarb succeeds best in deep, rich, somewhat retentive soil. The richer its condition and the deeper it is stirred the better. Sow in drills an inch deep and thin out the plants to six inches apart. In the Fall transplant the young plants into very highly manured and deeply stirred soil, setting them four to six feet apart each way, and give a dressing of coarse manure each Spring. The stocks should not be plucked until the second year and the plant never allowed to exhaust itself by running to seed.

Victoria, or Mammoth

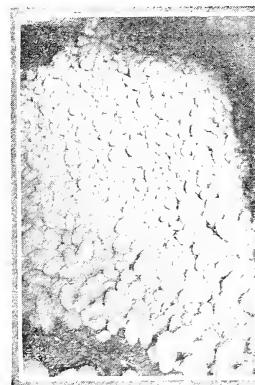
Very large; finest cooking variety.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 40c; 1 lb., \$1.25

The New "Riverside Giant"

Is the finest of all Rhubarbs and the most profitable to grow. See Plant Department.

Rhubarb Roots.—From October to June we can always supply one or two-year-old Rhubarb Roots. Customers wanting only a few dozen roots for home gardens will save much valuable time by ordering roots instead of seed. For prices see Plant Department.



FOR many years we have been growing seed Potatoes by careful re-selection, and comparative tests in various sections have shown that our select seed will produce the largest crops and more uniform salable tubers with average soil and culture, and have proven profitable and satisfactory under the conditions for which they are recommended.

The value and importance of Potatoes in rotating, and as a money crop should be more generally recognized, and to secure a ready market and increase your profits you should grow only the best standard sorts that are known to be suited to your soil and are in demand in your market. We have never known the time when fancy stock could not be sold at a fair price even when the market was overloaded.

SUGGESTIONS FOR GROWING—*treatment of Seed*

YOU can grow potatoes under most average conditions of soil and care, but for the big yields of shapely tubers that pay big profits it requires soil adapted to potato growing, good seed stock properly planted, and plenty of cultivating at the right time. You can make your soil fit by proper rotation and use of necessary fertilizers.

CULTURE.—Plow deep—8 to 10 inches—using a “jointer” to put all weeds and grass below reach of Harrow and Cultivator. Put the soil in good tilth—disc and use leveling harrow. Plant in rows 42 inches—ten to fourteen inches in the row if rich soil and you want to keep the size down—in poorer soils plant the hills farther apart. Early potatoes can be planted very close and good yields will result. As soon as danger of frost is over, spread the seed out thin in the sun or in a light room—this keeps back the sprouts, makes them sturdy, gives vigor and vitality to the seed, and helps kill fungus.

Cut the seed to about two eyes, planting four or five inches deep, harrowing soon after planting, and again as soon as up, and follow with a light and then a deep cultivation before the tubers begin to set. As soon as they start to form, drop away a little with your cultivator, and later on just work the surface to keep down weeds and retain moisture.

Weeds Rob the Growing Crop of Food and Moisture—and Yield no Tubers.

Treat Your Seed Potatoes

To prevent fungous diseases, Rhizoctonia, Fusarium, wilt, scab, etc., dip the seed before planting, using a solution of Corrosive Sublimate 1 part to water 1,000 parts soaking the potatoes for two hours, then spreading out to dry before planting.

CAUTION.—This solution is deadly poison, and should be kept away from animals and children. Must be made in a wooden tub or barrel—never put in a metal container.

Formaldehyde Treatment—

Soak the tubers before cutting for one hour and a half in a solution of 1 lb. (or pint) of Formaldehyde to 30 gallons of water. Formaldehyde is safe to use and is very effective for Scab but is not as good as the Corrosive Sublimate treatment for extreme stages of Rhizoctonia.

POTATOES are as sure and profitable a crop investment, and labor considered, as can be grown. And the varieties we offer (seed stock of our own growing), will produce the maximum yield of shapely salable tubers that will command the highest market prices. We can tell you the best varieties for your market and soil.

THIS IS THE YEAR TO PLANT—ORDER EARLY

SEED POTATOES—Continued

P. S. Co.'s "Earliest of All"

Can be had ready for baking nine weeks from planting, and fully matured in 13 weeks

WE HAVE YET TO FIND an early potato that can compare with our "Earliest of All." Its quick growth and early maturity gives the ground for July planting, and a second crop of late potatoes or, better, some crop to build up the soil can be grown the same season. Summer drouth does not affect it, for its growth is complete before it can be injured. Planted early is ideal for "Dry Farming." "Earliest of All" was originally a selection from "Eureka" showing a marked difference in habit and greatly increased yield which years of careful reselection have firmly fixed and improved.

"EARLIEST OF ALL" is a healthy, vigorous grower not subject to blight or disease, and does not make a second growth. Keeps as well as any late potato.

A handsome, shallow eyed, white-skinned potato of the finest table quality. This is the popular Early White potato sold in the public market.

PRICES: 1 doz. eyes, postpaid, 30c; 4 lbs., whole potatoes, 60c, postpaid; by Freight or Express, per peck, 75c; $\frac{1}{2}$ bu., \$1.25; bu., \$2.00; 100 lbs., \$3.00.



One hill "Earliest of All"—See back cover

Illustration of "Earliest of All" is one of 5 hills dug in a row, field run (see back cover), weight $6\frac{1}{4}$ lbs. The 5 hills weighed 25 lbs. 9 oz., and shows the uniformity and splendid yield of this "Earliest of All" potatoes. THE STOCK WE GROW HAS BEEN OBTAINED BY CAREFUL and SYSTEMATIC SELECTION, COVERING MANY YEARS and TO TEST RESULTS we have repeatedly secured planting samples of "Eureka" (the parent stock) and these comparative tests have proven in every trial the superiority of our selected heavy yielding strain.

IF TO BE SURE of getting the genuine "Earliest of All" buy direct from our Portland store. Beware of substitutions and varieties that are "just the same".

STANDARD EARLY VARIETIES

Early Freeman

A vigorous, productive, early potato of oval shape with russet skin, fine grained, white and floury. Not quite as early as "Earliest of All," but much earlier and a far better yielder than other very early varieties. Tubers shapely and uniform, with very few small ones. We specially recommend Early Freeman as a potato of real merit. Try it. Price, mail, 1 doz. eyes, 30c; 4 lbs. whole potatoes, 60c, postpaid. Frt. or Exp., pk., 75c; $\frac{1}{2}$ bu., \$1.25; bu., \$2.00; 100 lbs., \$3.00.

Early Sunrise

The best early pink variety—earlier than Rose, about the same depth of color, not so flat but a smoother potato, a bit more slender than Rose; Sunrise is hardy, has always been free from blight, and is the best yielder of its type.

Price, postpaid, 4 lbs. whole potatoes, 60c; Frt. or Exp., peck, 75c; $\frac{1}{2}$ bu., \$1.25; bu., \$2.00; 100 lbs., \$3.00.

Early Rose

Our stock of this popular variety is a special improved strain of our own growing; is very vigorous and extremely early.

Price, postpaid, 4 lbs. whole potatoes, 60c; Frt. or Exp., peck, 75c; $\frac{1}{2}$ bu., \$1.00; bu., \$1.75; 100 lbs., \$2.75.

Early White Prizetaker

One of the finest of all early sorts; oblong in form, 4 or 5 inches in length, with white, smooth skin and few eyes. It is a very superior cooking potato, baked or boiled, cooking up dry and floury.

White Prizetaker has important advantages over other early Potatoes, as its white skin, large size and good keeping qualities make it an ideal main crop variety, that sells at the best price. We always advise early planting, as the crop will be larger and better.

PRICE, postpaid, 4 lbs. whole potatoes, 60c; Freight or Express, peck, 75c; $\frac{1}{2}$ bu., \$1.25; bu., \$2.00; 100 lbs., \$3.00.

Early Ohio

We offer a select stock of this popular old favorite—from Northern grown seed—that we have grown for several years, a true heavy yielding strain—one of the best early pink potatoes.

Price, postpaid, 1 doz. eyes, 30c; 4 lbs. whole potatoes, 60c; Frt. or Exp., pk., 75c; $\frac{1}{2}$ bu., \$1.25; bu., \$2.00; 100 lbs., \$3.00.

Early Rural

Early Rural is an extra early red, round to oval shaped potato of the finest quality—of snowy whiteness—and a clean vigorous grower maturing very early and yielding heavily.

Price, postpaid, 4 lbs. whole potatoes, 60c; Frt. or Exp., pk., 75c; $\frac{1}{2}$ bu., \$1.00; bu., \$1.75; 100 lbs., \$2.75.

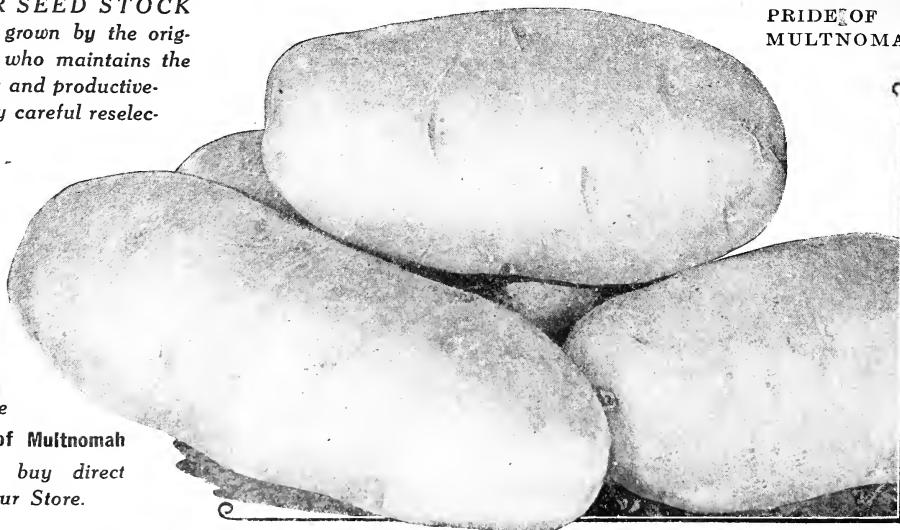
IRISH COBBLER—Often recommended as being "The same as 'Earliest of All'"—is a coarser, later potato—with a purplish pink blossom.—If you grow "Cobbler" and it is the finest earliest potato you ever saw—and has a white blossom—the chances are 10 to 1 it is "Earliest of All".



SEED POTATOES—Continued

OUR SEED STOCK
is grown by the originator who maintains the quality and productivity by careful reselection,
and
to
be
sure
of
having
the
genuine
Pride of Multnomah
always buy direct
from our Store.

PRIDE OF
MULTNOMAH



PRIDE OF MULTNOMAH—Main Crop

Excels in Yield and Table Quality

PRIDE OF MULTNOMAH Potato was first offered eight years ago and is the best main crop potato for Western Oregon. During these years we have distributed it to many sections of the United States, always receiving splendid reports, and up to the present time have yet to find a variety combining so many desirable qualities.

PRIDE OF MULTNOMAH excels in yield, uniformity, and table quality, being fine-grained, of snowy whiteness, and for baking or boiling has no superior. Its skin is thin, smooth and white; eyes shallow. In form they are the ideal elongated type so much in demand by commercial growers. It is also the best keeping potato we have ever known.

PRIDE OF MULTNOMAH is blight and disease resistant to a remarkable degree, and during the eight years we have grown it there has never been a crop failure. The top growth is vigorous and a mass of fine fibrous roots enable it to withstand drouth. Should be planted early to insure perfect maturity and finest quality.

 ORDER NOW and have your potatoes when you are ready to plant. We have never had enough to fill all orders. *Don't you be the one that is disappointed.*

PRICE, postpaid, 1 doz. eyes, 30c; 4 lbs. whole potatoes, 60c; Freight or Express, 1 peck, 75c; $\frac{1}{2}$ bu., \$1.25; bu., \$2.00; 100 lbs., \$3.00.

“**PRIDE OF MULTNOMAH**”, named after Multnomah county, Oregon, where it originated, is a seedling of our **White Prizetaker** and has an official record yield of 790 bushels per acre—fine shapely potatoes—the prize acre at the **Panama-Pacific Exposition**. Mr. M. J. Brickley, Hamburg, Calif., also won a special medal on **Pride of Multnomah** at the same exposition. Our own seed crops have run from 400 to 600 bushels per acre since its introduction. It is the most profitable late potato.

SNOW POTATO

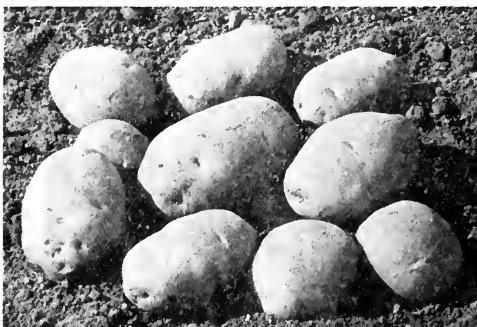
A splendid early maturing main crop Potato that gives a good yield on poor or light soil.

This fine potato, originating in Maine—a State famous for the quality of its potatoes—has proved a wonderful producer on poor soils where other varieties would not thrive.

Given good soil and culture, “**Snow**” produces enormous crops of fine large, oval tubers, slightly flattened, having shallow eyes and netted skin. “**Snow**” is fine-grained, flaky and of excellent quality. The luxuriant vines are dark green. The potatoes grow close together with few small ones.

“**Snow**” is a main crop potato, but makes an early and quick growth. Try it.

PRICES: 1 doz. eyes, postpaid, 30c; 4 lbs. whole potatoes, 60c; by Freight or Express, per peck, 75c; $\frac{1}{2}$ bu., \$1.25; bu., \$2.00; 100 lbs., \$3.00.



A single small hill of “Snow”

 “**Snow**” is one of the best for east of the Cascades and is used by the “**DRI-FRESH CO.**” at The Dalles, Ore.



SEED POTATOES—Continued

"PRODUCER"

A large smooth oval white potato with shallow eyes, of finest table quality; will not "boll to pieces," and baked has no superior; is a hardy, vigorous grower that earned its name of "**Producer**" on account of its enormous and never failing yield.

"**Producer**" is a seedling we have had on trial for several seasons, and it has always given a big crop even when conditions were very unfavorable and in dry weather. We hesitated to offer a new potato, but "**Producer**" has been such a success that we consider it a valuable sort—especially for dry or light soil as it will give a good yield where other varieties would fail.

PRICES: 1 doz. eyes, postpaid, 30c; Whole Potatoes by mail, 4 lbs., postpaid, 60c; by Freight or Express, customer's expense, peck 75c; $\frac{1}{2}$ bu., \$1.25; bu., \$2.00; 100 lbs., \$3.00.

White Rose

A standard market potato in southern California, the shape being a flattened oval rather elongated, having few eyes and a beautiful creamy white skin. As an exhibition variety *White Rose* has won many honors, being awarded a gold medal at San Francisco, and the blue ribbon over all varieties at the Oregon State Fair, and the Benton County Fair.

Yields well, and although not an early maturing potato, it makes a vigorous rapid growth and can be used quite early.

Stock is very limited this season, and trial orders should be placed early.

Price, postpaid, 4 lbs. whole potatoes, 60c; Frt. or Exp., peck, 75c; $\frac{1}{2}$ bu., \$1.25; bu., \$2.00; 100 lbs., 3.00.

Burbank

A standard commercial variety. We can offer a splendid strain of select Burbanks, not the "run-out" stock generally seen, but the genuine article, which is a really good potato.

~~Our~~ Our Burbanks sold to California growers produced record crops that passed certification inspection under the new California laws.

Price, postpaid, 4 lbs. whole potatoes, 60c; Frt. or Exp., peck, 75c; $\frac{1}{2}$ bu., \$1.00; bu., \$1.75; 100 lbs., \$2.75.

Garnet Chili

A large, late, round-shaped potato, much in demand by California growers for producing the early, round, pink potatoes supplied to the northern markets. Its growth is so vigorous and rapid that the young tubers form very early and stand handling and shipping better than early varieties that are more advanced. A heavy yielding, sure cropper.

Price, postpaid, 4 lbs. whole potatoes, 60c; Frt. or Exp., peck, 75c; $\frac{1}{2}$ bu., 1.00; bu., \$1.75; 100 lbs., \$2.75.

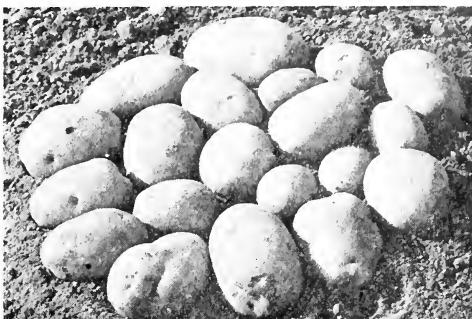
New Oregon

This potato is a seedling from Bliss' prize. A large shapely potato of the oval type, of fine table quality and a heavy yielding, vigorous grower, well adapted to clay soils.

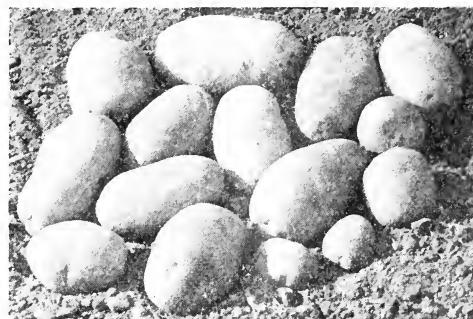
New Oregon was furnished to the school children for the state potato growing contest in 1913 by the originator, Mr. Kaplinger, and made a splendid record.

Price, postpaid, 4 lbs. whole potatoes, 60c; Frt. or Exp., peck, 75c; bu., \$1.00; $\frac{1}{2}$ bu., 1.75; 100 lbs., \$2.75.

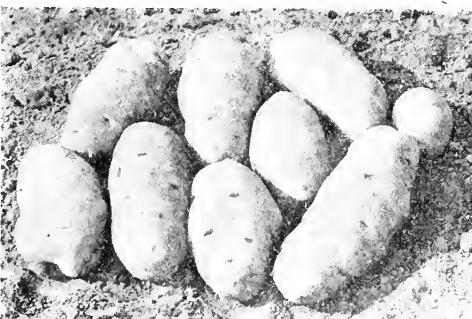
~~WE GROW MANY VARIETIES OF POTATOES IN OUR TRIALS THAT ARE NOT CATALOGUED~~, and are prepared to grow seed potatoes to order, in car lots, from our own select stocks, or from seed stock furnished. *Special terms to Dealers and Commercial Growers.*



A Hill of Producer



A Hill of White Rose — A Gold Medal Potato



*A Hill of American Wonder
American Wonder*

American Wonder is not only one of the best main crop potatoes, but is also one of the **earliest** potatoes grown. It is a strong grower, and great producer. Tubers white, large and uniform in size; elongated, slightly compressed, with few eyes, and is of good quality.

~~Our~~ Our strain of American Wonder is of exceptional purity and superior quality, having been carefully grown by reselection for many years. *Seed stock furnished to California growers passed certification inspection and produced record crops.*

Price, postpaid, 4 lbs. whole potatoes, 60c; Frt. or Exp., peck, 75c; $\frac{1}{2}$ bu., \$1.00; bu., \$1.75; 100 lbs., \$2.75. Write for price in quantity.



RADISHES

To secure Radishes with crisp, tender flesh, grow them quickly in rich, loess soil, and gather before reaching full size. Our Radish Seed is strictly of the finest grade, being grown from carefully selected roots. Frequent planting should be made for succession, so that a supply of fresh, tender Radishes in the finest condition may be had at all times.

Early Crimson Giant

The Largest Early Scarlet Turnip-Shaped Radish

A new, early Radish, double the size of any of the turnip-shaped type, but, notwithstanding its immense size, does not get hollow and plthy. The flesh is a sparkling white, solid, crisp, juicy and of the mildest flavor. The shape of the bulb varies from round to almost oval, but the bright, deep crimson color of the skin remains quite constant. Excellent for both forcing and open ground.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 75c

Early Scarlet Turnip

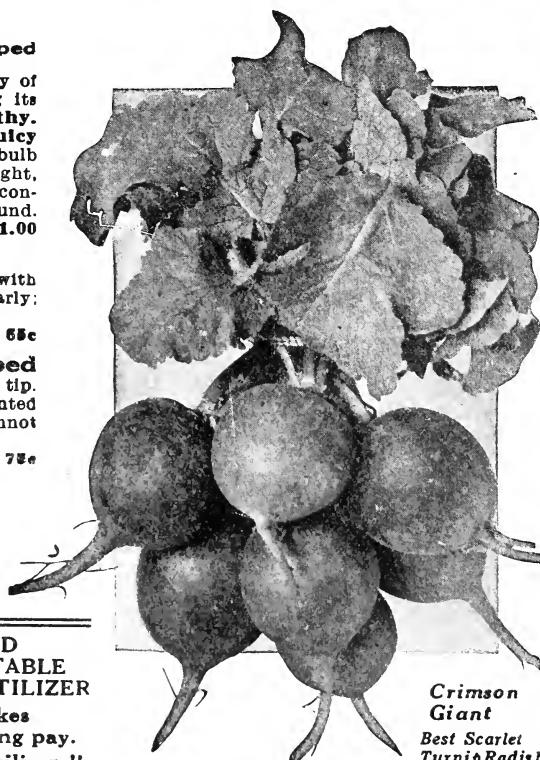
A small, round, red turnip-shaped Radish, with small top and of very quick growth; very early; rich color and crisp, tender flesh.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 65c

Early Scarlet Turnip, White Tipped

A beautiful variety; deep scarlet with white tip. Very early. Has a small top, and may be planted closely. Flesh crisp, tender and sweet. Cannot fail to give satisfaction as a forcing Radish.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c



**DIAMOND
VEGETABLE
FERTILIZER**
Makes
gardening pay.
See "Fertilizers".

*Crimson
Giant
Best Scarlet
Turnip Radish*

White Icicle

This superb Radish is the finest and longest of the very early, pure white varieties. Planted in the Spring, is ready for use in twenty to twenty-five days; their long, slender form and pure, paper-white skin are most attractive when bunched for market. This Radish is not only crisp and tender when young, but also retains these qualities until the roots attain large size; is excellently adapted for forcing purposes or successive sowing in the open ground and gives a continuous supply of tender, crisp Radishes for the table or market throughout the season.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Early Long Scarlet, Short Top

This bright scarlet, small topped sort is uniformly straight, smooth, brittle and crisp, and is a standard and excellent sort for private gardens or market use.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 65c

Long Brightest Scarlet, White Tipped

This is the brightest and handsomest colored Scarlet Radish known. The lower third of the root is snow white; very attractive. It is extra early and the flesh is very tender. Valuable for forcing or open ground.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 65c

Early Snowball

A grand improvement on the White Box or White Turnip Radish which has been so popular for several years. It is handsome in shape, very early, and has but few leaves, is of a clear white color, solid, juicy, crisp, tender and unsurpassed in flavor. A good sort for forcing.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 65c



RADISHES—Continued.

Cincinnati Market

A superior strain of long scarlet, an early, rapid grower of a deep crimson color, so clear and brittle as to be almost transparent. Keeps fresh and stands shipment—a fine market radish.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 65c

Improved Chartier

Roots long, tapering, and attaining a very large size. Of rapid growth; remains crisp and tender till fully grown. Color, scarlet above; shading into white at the tip. Flesh white and mild flavored.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 65c

Winter Radishes

California Mammoth White China

This is the largest of all radishes. Roots grow ten to twelve inches long and are solid, tender and crisp. Keeps well through Winter.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 65c

BLACK SPANISH LONG.—Standard Winter sort; has good flavor and keeps well.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

SPINACH

This is an important gardener's crop, of easy culture. For Spring and Summer use, sow either broadcast or in drills one foot apart and one inch deep, as early as the ground can be worked, and every two weeks for a succession.

Improved Thick Leaved. Variety which grows very rapidly, forming a cluster of large, very thick, slightly savoyed leaves of fine color, and quality when cooked. Best for market gardeners.

Savoy Leaved. Very early; of upright growth; leaves pointed. Plant in the Autumn for Spring use; grows quickly.

Prices are uniform on all varieties.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00

SALSIFY or Vegetable Oyster

Salsify is a nutritious and wholesome vegetable, having the appearance of a small parsnip; in flavor closely resembling oysters, for which it is, in that respect, a good substitute. It is rapidly coming into more general use.

CULTURE.—Sow early in Spring, in drills a foot apart, and when two or three inches high thin out to three or four inches. Its general culture is the same as that recommended for carrots. The roots are perfectly hardy and may remain in the ground during Winter, or may be stored in dry earth or sand.

MAMMOTH SANDWICH ISLAND.—The leading variety; produces a large crop of straight, smooth roots.

Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 75c; lb., \$2.00

TURNIPS—Ruta Baga or Swede

FOR feeding stock in Fall and Winter there is nothing superior to Turnips or Ruta Bagas, as they are much liked by all kinds of stock and serve to keep them in good condition. We can not too earnestly recommend farmers to increase their sowings largely, for we are sure the crop will prove remunerative.

Banholm Pajbjerg

Danish Purple Top

This variety was awarded a first-class certificate by the Danish government for heaviest yield, having given 49 tons per acre. In shape is a little more elongated than the Globe types. This variety is recommended as the best of its class.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 85c

Monarch or Tankard

This is a yellow fleshed sort, having very large, tankard-shaped roots; flesh very solid, fine grained, of fine flavor; grows well out of the ground and yields large crops.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c

Skirving's

Enormously productive; flesh yellow, solid and sweet. One of the best for field culture.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c

White Sweet Russian

This variety is most excellent, either for table or stock. It grows to a very large size; flesh white, solid, of a firm texture, sweet and rich; an excellent keeper.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c

Improved American Purple Top

The leading standard variety, being very distinct in type, attaining a wonderfully large size; immense yielder. The flesh is very firm, superior in every way, valuable alike for all purposes.

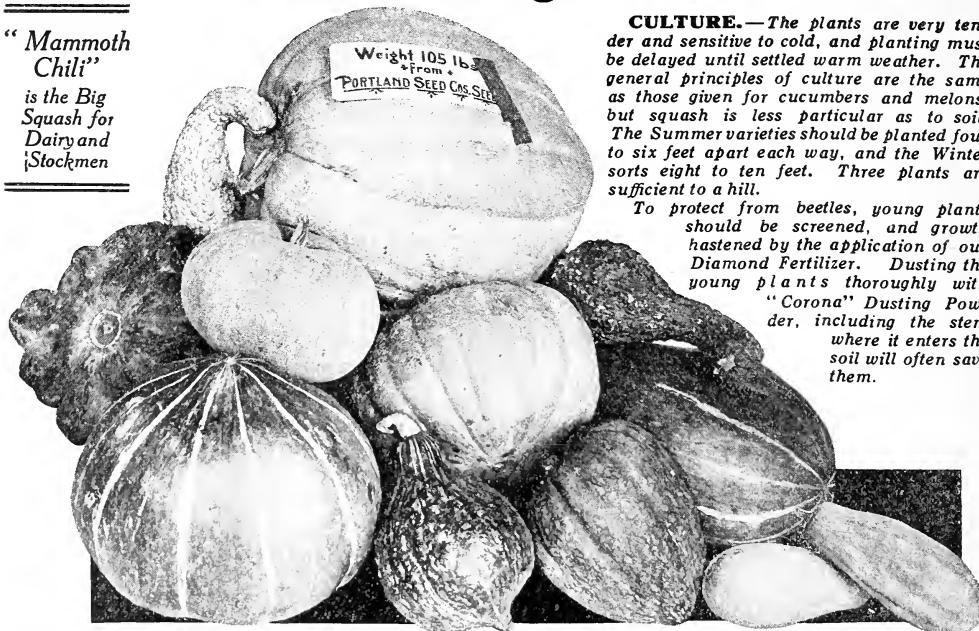
Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 75c



"Diamond Quality" SQUASH

"Mammoth Chili"

*is the Big
Squash for
Dairy and
Stockmen*



Summer Varieties

Mammoth White Bush Scallop

The best Summer sort for the market; very productive and of good size.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Early Yellow Mammoth Bush Scallop

An early, flat, scallop-shaped variety; color yellow; flesh pale yellow and well flavored; very productive. Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Mammoth Summer Crookneck

Early, prolific, solid, curved neck; skin yellow, thin, hard and warty; flesh tender and of good quality. Twice as large as the ordinary Crookneck and several days earlier.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

White Summer Crookneck

Similar to the Yellow Crookneck, but of a beautiful ivory white and unsurpassed quality.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

English Vegetable Marrow

Oblong, dull yellow skin, very prolific and of finest table quality.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Fordhook

Oblong in shape, eight to ten inches long, with thin, yellowish skin, slightly ridged. One of the finest Summer Squashes, and if left to ripen makes a splendid Winter sort.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Winter Varieties

True Hubbard

The best seller and most popular variety on our list. Rind dark green, warty and very hard. Flesh light orange, very dry, sweet and rich flavored. Has no superior. Keeps perfectly through the Winter.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 85c

Golden Hubbard

The same in size, shape and quality as the well known Hubbard Squash, except that it is a bright red or golden color, and somewhat earlier. It is also a long keeper. One of the very best Fall and Winter sorts yet introduced. Maturing before the frosts; is vigorous and wonderfully productive.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 35c; lb., \$1.00

Mammoth Chili

The largest of all Squashes, growing to an enormous size, often weighing over 200 pounds, while its rich, fine flavored flesh insures its value for all purposes. Its size makes it valuable for stock feeding.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 35c; lb., \$1.00

Sibley, or Pike's Peak

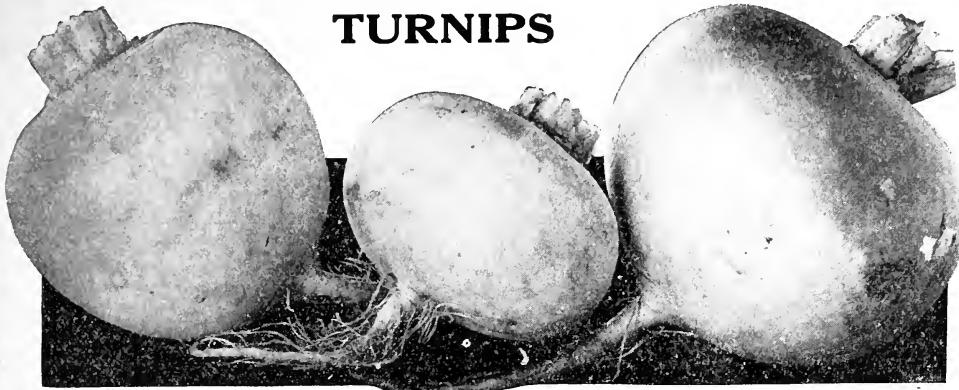
Shell smooth, thin and of a pale green color; the flesh is thick, solid, deep orange color; very dry, fine grained with a delicate flavor.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00



REMEMBER—“PRIDE OF MULTNOMAH” IS THE MOST PROFITABLE MAIN CROP POTATO FOR YOU TO GROW.

TURNIPS



Orange Jelly

White Milan

P. T. White Globe

FOR early use sow the small sorts as soon as the ground can be worked in the Spring, in drills fourteen inches apart. As the seed is very fine, it should be covered but slightly, except in very dry weather. For Fall and Winter use, sow the early kinds during July, August and September.

Early Garden Turnips

Early Purple Top Milan

This variety is ready for the table sooner after planting than any other yet introduced. Top small, erect, strap-leaved; bulb a deep purple above, white underneath; flesh white, firm and delicate.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 35c; lb., \$1.25

Early White Milan

Same as Purple Top Milan, but pure white, sweet and tender; best early market variety.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 35c; lb., \$1.25

Early White Flat Dutch

One of the very best and most universally grown. Small, erect top, round, flat; flesh, white, firm, but very tender and sweet. Of quick growth, it is soon ready for the table and keeps well.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 65c

Main Crop Turnips

Danish Bortfelder

This is a superior Danish variety introduced as an improvement on Cow Horn, being a heavier yielder and growing straight. It is also sweet and fine-grained, being a good table Turnip. Shape is long and tapering, but grows well up out of the ground. Sow in Spring for Summer, and in mid-Summer for Winter feeding.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Cowhorn

Sometimes called Long White. Slightly crooked. Pure white except a little shade of green at the top. Grows half out of the ground and is of very rapid growth. Is delicate and well flavored. Has proved itself one of the best stock turnips ever introduced in Oregon, as it is an immense yielder.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Pomeranian White Globe

One of the most productive kinds, and in good, rich soil, roots will frequently grow to 12 pounds in weight. It is of perfect globe shape; skin white and smooth; leaves dark green and of strong growth.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 65c

Purple Top Strap Leaf

A leading white-fleshed variety, and one of the best, either for the family, market garden or field crop. It is medium size, and produces a large crop. The flesh is firm, but tender, and of a superior rich buttery flavor. A good keeper.

Pkt., 5c; oz., 10c; 2 oz., 15c; $\frac{1}{4}$ lb., 25c; lb., 75c

Early Snowball

Early round turnip, maturing in seven weeks, is of perfect form, snowy whiteness, crisp, solid and of fine flavor.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Orange Jelly

Or Robertson's Golden Ball

Undoubtedly one of the most delicate and sweetest yellow-fleshed turnips yet introduced. Not of large size, but firm, hard and most excellent flavor. Keeps well and is superior as a table variety. It is extensively used by market gardeners.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Purple Top White Globe

A large, globe-shaped variety; purple above the ground. It is handsome and of excellent quality, and recommended both for the family garden and field crop.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

Large White Norfolk

A white variety, usually attaining a very large size. Extensively grown for stock feeding. The leaves are also used for greens. It is hardy and may remain in the ground all Winter. Yields very large crop.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 65c

White Egg

Is perfectly smooth, of a pure, clear white, growing half out of the ground, and at times to the size of a Ruta Baga, being a very choice kind for table use; of excellent flavor; sweet and mild. Pulls clean from the ground; thin, snow-white skin.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

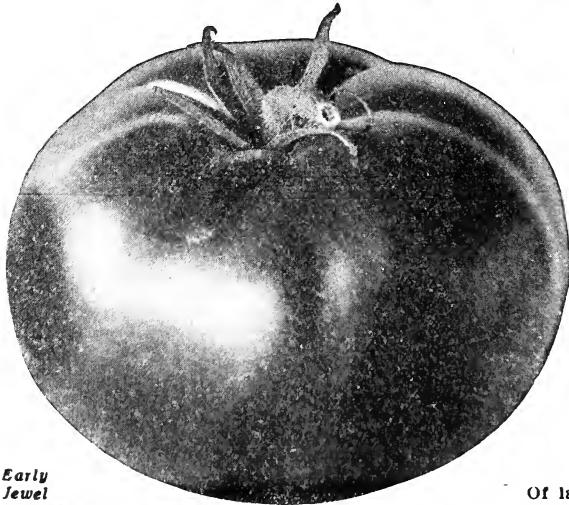
Yellow Aberdeen

Round, medium size; light yellow. Produces a large crop; is hardy and keeps well; flesh very firm but tender and sweet. A great favorite with the dairymen.

Pkt., 5c; oz., 10c; 2 oz., 15c; $\frac{1}{4}$ lb., 25c; lb., 75c



TOMATOES



*Early
Jewel*

Chalk's Early Jewel

Large, bright red, smooth, round fruits, very deep and colored evenly up to the stem; very solid, almost seedless and of the finest flavor.

Vines are vigorous, not subject to blight, and yield fully equal to or better than Earlliana.

We recommend Chalk's Early Jewel as the very best early Tomato for either market or home gardens, as it has given us uniformly better satisfaction under the varying conditions of soil and climate in the Northwest.

Pkt., 10c; oz., 20c; $\frac{1}{4}$ lb., 60c

Tomato Culture — by Littoooy Post Paid 25c.

Bonny Best

Bonny Best has given splendid results wherever tried and being early, hardy and very productive can be recommended for outside planting wherever tomatoes can be grown. It is also a good forcing variety. Fruit smooth, round, slightly flattened, solid and of a bright scarlet. Quality excellent.

Pkt., 10c; oz., 30c; $\frac{1}{4}$ lb., \$1.00

New—Carter's Sunrise

A very early English variety of fine flavor and healthy, vigorous growth, with solid flesh and few seeds; very even, smooth and shapely. Color, bright, rich scarlet. Is also one of the best forcing varieties.

Pkt., 25c

Comet—Forcing

The very best forcing variety and a general favorite with greenhouse growers. Color is a beautiful scarlet; fruits are of good size, very smooth and uniform. We offer a select strain from inside stock.

Pkt., 25c

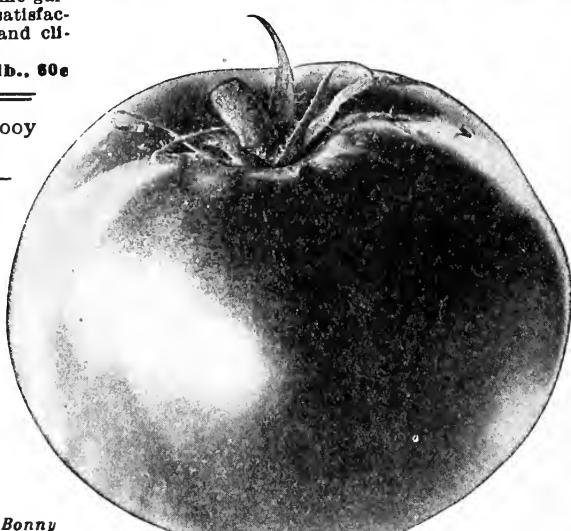
Ponderosa

The largest Tomato, fruits are solid and of a purplish red color, sweet and of good quality.

Pkt., 10c; oz., 40c; $\frac{1}{4}$ lb., \$1.00; lb., \$3.00

Tomato Plants

STANDARD VARIETIES FOR SEASONABLE DELIVERY — FINE, HEALTHY, TRANSPLANTED AND POT GROWN PLANTS — Safely Packed and Shipped to any point in the Northwest. See Plant Dept.



*Bonny
Best*

Livingston Globe

One of the Best Early Tomatoes Hardy and Blight Proof

Fruits are of large, even size; very early; ripen clear through and are always smooth, firm and round; with solid meat and few seeds. Color is a beautiful glossy, rose-tinged purple; very productive. Livingston's Globe is of delicious table quality and will keep longer than any other Tomato. Is also an excellent forcing variety.

Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 75c



TOMATOES—Continued

New Stone

This new variety has obtained great popularity with canners, growers and market gardeners everywhere. Its solidity and carrying qualities are remarkable. Its color a desirable red. In shape, perfectly smooth and thicker from stem to blossom end than most varieties, making it very **handsome and salable**. All speak in highest terms of its beautiful color, its wonderful yielding properties, its unequaled firmness.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 50c

Atlantic Prize

In point of earliness, this undoubtedly takes the lead. In size, shape and color it compares favorably with later sorts. Color, bright red.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 50c

Quarter Century

A grand, new dwarf tomato. The fruit is large and heavy and of superior flavor; color, deep red. Fine for home garden.

Pkt., 5c; oz., 25c; $\frac{1}{4}$ lb., 85c

Well Known Standard Varieties

DWARF CHAMPION. —Dwarf, upright growth; smooth, purple fruit.....	5c	25c	75c
GOLDEN QUEEN. —This is a first-class, large, smooth, pure yellow tomato.....	5c	25c	75c
LIVINGSTON'S BEAUTY. —Large; good quality; deep red in color.....	5c	25c	55c
LIVINGSTON'S FAVORITE. —Excellent for general crop; bears heavily.....	5c	25c	55c

Yellow Pear

A small pear-shaped tomato, borne in great profusion, vine literally covered with large clusters of fine, solid fruits; excellent for preserving, and for use in salads and cooking is superior, as flesh is not watery. Very hardy. To this class belong **Yellow Plum** and **Red Cherry**. All same price.

Pkt., 5c; oz., 25c; $\frac{1}{4}$ lb., 75c

Ground Cherry, or Husk Tomato

Grows to great perfection under ordinary culture, yielding abundantly; very much prized for preserving; should be in every garden.

Pkt., 5c; oz., 30c; $\frac{1}{4}$ lb., \$1.00

Livingston's New Coreless

The most perfect shape canning variety ever produced. Large size, globe shaped, full at stem end, bright red, a strong grower and big cropper.

It is immensely productive, clusters of four to seven fruits are produced at six to eight inches apart along the stem. All of the fruits are of marketable size, and many of them are quite large, twelve to fifteen ounces. Always free from green core; ripens all over and through and right up under the stem, all at once. A grand, good slicing variety; the seed cells being surrounded by bright red, heavy, meaty and delicious flesh, which is slightly acid.

Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 75c

Livingston's Perfection

One of the best medium early, round, uniformly smooth; vines very productive; fruit deep scarlet, firm and of excellent quality. Vines continue long in bearing.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 55c

Early Michigan

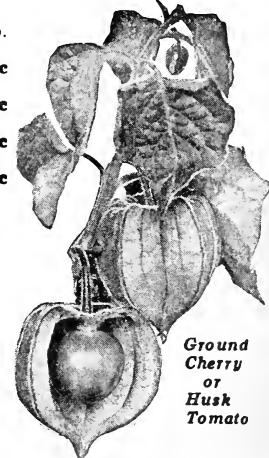
An extremely smooth and perfectly shaped tomato; very early; vines strong and vigorous.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 50c

FERTILIZERS

Are not an expense. They are a safe investment, sure to return many times their cost.

Ask for our free book, "Fertilizers"



Ground
Cherry
or
Husk
Tomato

Tobacco

Sow the seed thinly in beds, as early as they can be well prepared. Cultivate thoroughly, transplanting when six inches high to rows four feet apart each way.

Connecticut Seed Leaf

Hardy, and the best adapted to cool localities and for general use.

Pkt., 5c; oz., 20c; 2 oz., 35c; $\frac{1}{4}$ lb., 60c; lb., \$2.00

Havana

Of fine texture and delicate flavor.

Pkt., 5c; oz., 25c; $\frac{1}{4}$ lb., 75c

Tree Seed—For Nurserymen

PEAR SEED—French.

Oz., 20c; $\frac{1}{4}$ lb., 60c; lb., \$2.00

Japanese—The best imported for nursery stocks.

Oz., 30c; $\frac{1}{4}$ lb., 65c; lb., \$2.25

WALNUT, ENGLISH—Imported and Domestic.

—We offer new crop, our own direct importation from the best French growers; also Oregon grown from grafted stock. In the most desirable varieties: **Mayette** and **Franquette**. Write for prices on large orders.

2c each; \$1.75 per 100 nuts

Weight packed, 3 lbs. per 100. Add postage at zone rate.

APPLE SEED—French Crab.

Oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 70c

CHERRY PITS—Mazzard. $\frac{1}{4}$ lb., 15c; lb., 50c

Mahaleb. Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., 95c

PEACH PITS—For Nursery Stock.

Lb., 20c; 100 lbs., \$2.50

PLUM PITS MYRABOLAN

Oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 70c

QUINCE SEED. Oz., 20c; $\frac{1}{4}$ lb., 60c; lb., \$2.10

LOCUST—Yellow or Black.

Oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c

Honey. Oz., 10c; $\frac{1}{4}$ lb., 25c



FIELD AND FARM SEEDS

There are many varieties of grasses and forage plants offered by Eastern seedsmen (often under new names) that will not give profitable crops in our climate, and to avoid disappointment, we refer you to the following list, which has been carefully selected and contains the most desirable varieties for general and special purposes.

A careful reading of the following pages will give you much valuable information that has required years of observation and experimenting to obtain.

IMPORTANT, Read Carefully

Clover, Grass and Field Seeds are subject to market changes, therefore we cannot print prices good for any length of time. When ready to buy, write us for special prices, stating quantity wanted; or send in your order at catalog prices. **We guarantee that we will give you full value for the money sent**, whether the price at the time you order be higher or lower, or if the difference is very great we will notify you before shipment. **No premiums on Grass and Field Seeds.**

Single pound prices include postage. If ordering by freight or express deduct 10c per pound. Write for prices on large quantities.

100 lb. PRICES are F.O.B. PORTLAND, and are SUBJECT to MARKET CHANGES. But—You will always get full value for money sent us.

Artichokes

There is an unlimited market for Hogs and Artichokes are the cheapest and best feed. They never fail. They are also valuable to dairymen, being cheap, and good milk producers.

Planted and cultivated same as potatoes. Of great value for feeding stock. They are the best hog feed known; are remarkable for their fattening properties, great productiveness (over one thousand bushels having been raised on one acre) and ease with which they can be grown. They need not be dug. Turn the hogs into the field, and they will help themselves by rooting. One acre will keep from twenty to thirty hogs in condition from

October until April, except when the ground is frozen too hard for them to root. They are said to be a preventive of cholera, and other hog diseases, and are also highly recommended for milch cows, increasing the yield of milk and at the same time improving their condition. Plant ten bushels per acre early in the Spring.

Note.—Tubers on hand from January to May. **Per lb., postpaid, 15c; F. O. B. Portland, 100 lbs., \$2.00**

Cow or Thousand Head Kale Plants in Season

The great demand for this wonderful forage plant proves it to be the most valuable green feed for Pacific Coast dairy and stockmen; endorsed by Agricultural Colleges and Government Stations. Cow Kale should be grown in the same manner as cabbage. Make the rows 4 feet, plants 3 feet apart in the row. Can be set as late as July. Write for full information on Planting and Feeding.

Postpaid, oz., 10c; $\frac{1}{4}$ lb., 20c; lb., 60c

Flax Seed

We have a splendid lot of selected recleaned Western-grown Flax, new crop, large plump seed.

Per lb., postpaid, 20c; F. O. B. Portland, 100 lbs., \$8.00

Write for Prices on 100-lb. and Ton Lots

BUCKWHEAT

Buckwheat is a valuable crop that can be easily grown wherever wheat will grow, producing a good yield even on light or poor soil and under favorable conditions is very profitable, being in big demand for milling—and is also the best "Bee pasture."

Sow 36 lbs. per acre in drills, 48 lbs. broadcast. **We recommend the Japanese variety.**

Common, lb., postpaid, 20c; F. O. B. Portland, 100 lbs., \$4.50

SILVER HULL.—Of a light gray color, rounder than the common; has a thin husk; matures earlier and yields heavily. An excellent milling variety.

Per lb., postpaid, 20c; F. O. B. Portland, 100 lbs., \$4.50

JAPANESE.—Ripens early—is hardy and yields the largest crops. The grains are extra large, dark brown, very thin hulled and makes the highest grade of flour. Good seed stock has been very scarce for several seasons, but we now have a fine lot which we can offer at a very low price.

Per lb., postpaid, 20c; F. O. B. Portland, 100 lbs., \$4.50

Typical Plant of
Cow Kale



A quarter of a lb. of seed will produce enough Kale plants for one acre.

BARLEY

BARLEY is a shallow feeder, the roots growing near the surface, and requires a rich, mellow soil. Barley responds readily to good tillage and any extra work with the disc and fine tooth harrow will be amply repaid. Do not try to grow upon poor, sandy or wornout soils, or where the ground is not in good condition or well drained. In rotation, Barley follows Corn, Peas, Potatoes, or any cultivated crop, and is the best nurse crop for starting clovers or mixed grasses. Should be planted late after ground is warm and Spring weather settled. Plant two bushels per acre. Crimson Clover planted in the Fall and plowed under after blooming in the Spring, leaves the soil in fine condition for barley.



Trial Plot of Hannchen Barley, Oregon Agricultural College.

Blue Hulless Barley

Beardless

This new Barley originated at the Oregon Agricultural College and is recommended as one of the most satisfactory varieties for this section, being a heavy yielder with strong straw and makes a satisfactory and profitable crop for either hay or grain.

Price: 1b., postpaid, 15c; Freight or Express F. O. B. Portland, 100 lbs. \$3.00.

New—"Oderbrucker" Barley

This is a Pedigreed strain of 6-row barley, selected and bred by the University of Wisconsin, and is considered the earliest maturing, most prolific of all the barleys. Has a stiff straw, is rust resistant, and owing to its high protein content is a very superior feeding sort. This is the variety that was secured at great expense by the Oregon and Washington Railroad Co. for introduction in their territory. We offer the genuine stock of our own growing.

Price: 1b., postpaid, 15c; Frt. or Exp., F. O. B. Portland, 10 lbs., 35c; 100 lbs., \$2.75.

White Hulless or Bald Barley

Beardless

White Hulless, or Bald Barley.—A very Early Spring variety—beardless, and of high feeding value, said to exceed corn as a pork producer. Can be fed to all live stock—especially valuable used in a mixed ration. Grain plump, heavy and when threshed is hulless like wheat. A heavy cropper. When grown and cut for hay it produces a magnificent fodder, which is very rich and almost equal to a grain feed. Much relished by horses and stock of all kinds. Culture same as Common Barley.

Per lb., postpaid, 15c; F. O. B. Portland, 100 lbs., \$3.00.

Common Barley

We always aim to have a nice, clean stock of good Seed Barley on hand at all times. This is the common 6-row bearded type.

Per lb., postpaid, 15c; F. O. B. Portland, 100 lbs., \$2.75.

Hannchen Barley

Hannchen is the earliest and best of the 2-rowed barleys, is drought resistant and a sure and heavy cropper. The seed stock we offer was grown by the Oregon Agricultural College, and they write: "We call your special attention to the plumpness of the seed, thinness of the hull and the ease with which the beards break off. It frequently happens that these beards drop in the field before harvest." Although a Spring Barley, the United States Department of Agriculture has successfully grown Hannchen Barley from fall seeding where the winters are mild.

Price: 1b., postpaid, 15c, Freight or Express F. O. B. Portland, 100 lbs. \$3.00.

Beardless Barley

Beardless.—The earliest barley known. The straw is about the height of the Common Barley, but better, and will stand up on any land; last season's seed crops averaged 65 bushels per acre, although the season was a dry unfavorable one. Sow as early as you can; frost does not hurt it. Many farmers will not grow Barley on account of the long, harsh beards which are so disagreeable in threshing although it is a profitable crop. This is as nearly beardless as seems possible to obtain, as beardless barleys show a tendency to produce a small percentage of bearded heads; it is about as easy to grow and handle as oats, and is the most Popular Barley grown.

Per lb., postpaid, 15c; F. O. B. Portland, 100 lbs., \$2.75.

Black Hulless Barley—Bearded

Best of grains for feeding or fattening stock. Greater food value than corn.

Black Hulless Barley will grow on the dry Alkali soil where other grains fail. Sow in the Fall or Spring as late as June 15, 75 to 100 lbs. per acre. Will yield as high as 75 bushels to the acre, weighing about 70 lbs. to the measured bushel; does not shatter or shell out easily.

When planted in the Fall its abnormal stooling habit and wide succulent leaves make it ideal for late Fall pasture; yielding a full crop the next season. Stock prefer and thrive on it.

Per lb., postpaid, 15c; F. O. B. Portland, 100 lbs., \$3.00.

GRAINS and GRASSES Subject to Market Changes. Write for Prices.

A "CLIPPER" Grain Cleaner improves the quality and increases the yield of any grain crop. When you buy a fanning mill BE SURE YOU GET A "CLIPPER." The mill with the "VERTICAL BLAST" Special Catalog and Full Information on Request.



We offer a limited amount of our seed corn on the cob, but you must order early.

THE CORN CROP in the Northwest the past season was a splendid one considering the unfavorable weather, and while the early frost, in some sections, injured the grain crop, the use of the silo and cutting for fodder protected the growers from loss and demonstrated that corn is a safe and profitable crop even under adverse conditions.

Our seed crop, of most varieties, is of excellent quality—well matured—and we can safely say that the varieties offered, being acclimated, will be found right for the purposes and conditions for which they are listed.

CULTURE.—*Thorough preparation of the soil is necessary for best results, methods of culture being determined by the different conditions of soil, climate, moisture and previous crops. The ideal soil is a deep warm one with a little sand, well drained and with sufficient humus to hold the moisture.*

Deep plowing is always necessary for best results, and the heavy soils on the West side of the Cascades will give best results from Fall plowing, repeating in the Spring before seeding time. A liberal amount of stable manure and thorough tillage will help to offset the cold nights. For best results when planted for grain, plant in hills 42 inches apart, allowing two stalks to the hill. For fodder or silo, three stalks, if the ground is rich.

For East of the Cascade Mountains—quoting "Farmer Smith"—"Where rainfall exceeds 12 inches and Corn is to follow Wheat, roll the stubble with corrugated roller right after harvest; then after first heavy rains, disc crossways of the rolling. If open weather, plow or disc thirty days later, allowing to lay in the rough until Spring. Ten loads of stable manure put on during the Winter or Fall will prove helpful. In the Spring when ground can be worked, disc and harrow every two weeks until May 1st, then plow deep, discing every day's plowing and harrow, roll or clod-crush to a fine well-packed surface. List 6 inches deep in 42 inch rows, kernels 12 to 14 inches apart in the rows. If Litter is not available, plant at bottom of 6 inch furrow made with a stubble plow. Five days after planting, harrow with slanting spike tooth harrow repeating every week until Corn is 4 to 6 inches high, then continue cultivating until in tassel."

Hartman Yellow Dent Corn

Grown in Oregon by Careful Reselection.

"Hartman Yellow Dent" was chosen by the O.-W. R. & N. Company for free distribution covering two seasons, as being the most promising variety for general introduction in the Northwest, it being an early Corn produced by more than twenty years of careful reselection by Mr. Hartman, in the Willamette Valley.

The reports from the various sections where the Corn was given a trial have confirmed the judgment of "Farmer Smith," Agriculturist for the O.-W. R. & N. Company, and "Hartman" is now considered a standard Dent Corn for grain west of the Cascade Mountains, and is also good for silo, it having the unusual habit of maturing the ears while the stalk remains green, so that it can be cut for fodder or silo when the grain is harvested. Cob is small, ears medium to large, stalk light, allowing close planting. Our seed crop has yielded 65 bushels per acre on light hill land, 76 bushels per acre on bottom land, and 90 bushels per acre on beaver dam. We offer the original stock on the cob or shelled, in limited quantities, but orders should be placed early, as we will probably be sold out before the planting season.

Price, select ears, 20c each; \$2.00 doz. postpaid; shelled, by freight or express. 1 lb., 15c; 10 lbs., 90c.

Minnesota King (Dent)—Oregon Grown

Smallest cob and largest grain. The ears are uniformly well filled out. Makes more shelled corn to a given bulk of ears than any other variety. Golden yellow and a good yielder, being a safe corn to plant west of the Cascade Mountains and in Eastern Oregon and Washington below 2,600 feet. Use dent varieties above that altitude.

Oregon Grown, 1 lb., 15c; 10 lbs. 85c. Eastern Seed, 1 lb., 10c; 10 lbs., 65c.

PRICES SUBJECT TO MARKET CHANGES. Write for quotation on large lots.



Oregon Grown

Pride of the North

Well Known and Standard Varieties

ALL SORTS OF FIELD CORN 10c PER PACKAGE; PRICES PER 100 POUNDS ON REQUEST			
EARLY CANADA. —(Flint.) An eight-rowed Yellow Flint Corn; early and very productive.....	Per lb. 10c	Per 10 lbs. \$0.60	
KING PHILIP. —An early Red Flint Corn; well acclimated and well known	10c	.60	
WHITE RICE. —Pop Corn. Best variety for popping corn.....	10c	.75	

PRICES SUBJECT TO MARKET CHANGES. Write for quotation on large lots.

Field Corn**Pride of the North Yellow Dent**

Oregon Grown

See Cut

PRIDE of the North has long been the standard Corn recommended by the Agricultural Stations as the best Yellow Dent for Eastern Oregon, Washington and Idaho, and our Oregon-grown seed has given splendid results whenever conditions have been at all favorable, maturing early and yielding heavily, the foliage being luxuriant and of medium height. "Pride of the North" is specially recommended for silo. The ears are large and well filled and of a beautiful golden color.

We can furnish ears or shelled Corn of this splendid variety from our Oregon grown seed.

Oregon Grown. 1 lb., 15c; 10 lbs., 65c
Eastern Seed. 1 lb., 10c; 10 lbs., 65c

**Minnesota No. 13
Yellow Dent**

A variety of great promise, being the earliest of the early Yellow Dent corns and reported to be the heaviest yielding. Producing splendid large ears, closely filled from end to end with bright yellow kernels. Has rather a thick cob and the shelled grains have a tendency to irregularity. "Minnesota No. 13" will average 7 feet high and being a rapid, vigorous grower, with heavy foliage, makes a fine fodder corn, and is specially recommended for ensilage west of the Mountains. Will mature in 90 days under favorable conditions.

1 lb., 15c; 10 lbs., 90c

Oregon Grown Yellow Dent

Thoroughly acclimated seed that has given splendid returns in the Willamette Valley. Matures early and gives a good grain yield; is also a very satisfactory corn for silo.

Price: 1 lb., 10c; 10 lbs., 75c

Golden Glow—Oregon grown

"Golden Glow" is a well known and very popular yellow Dent corn that produces a large, handsome ear and abundant foliage—a good grain or silo corn. Maturing a little later than Oregon Yellow Dent but earlier in this section than Minnesota 13.

This variety won First Prize at St. Paul, Minn., Corn show last winter.

Price: 1 lb., 10c; 10 lbs., 75c

Wisconsin White Dent

"Wisconsin White Dent" is a large handsome White Dent, extremely early and matures perfectly, and is the best White Dent Corn for Oregon and Washington.

1 lb., 10c; 10 lbs., 65c

Australian White Flint

A growing test of three seasons has demonstrated the adaptability of this valuable variety to Northwestern conditions. It is earlier than the well-known "Eight-Row Canada," and is to be preferred on account of its color, productivity and very early ripening.

1 lb., 10c; 10 lbs., 60c

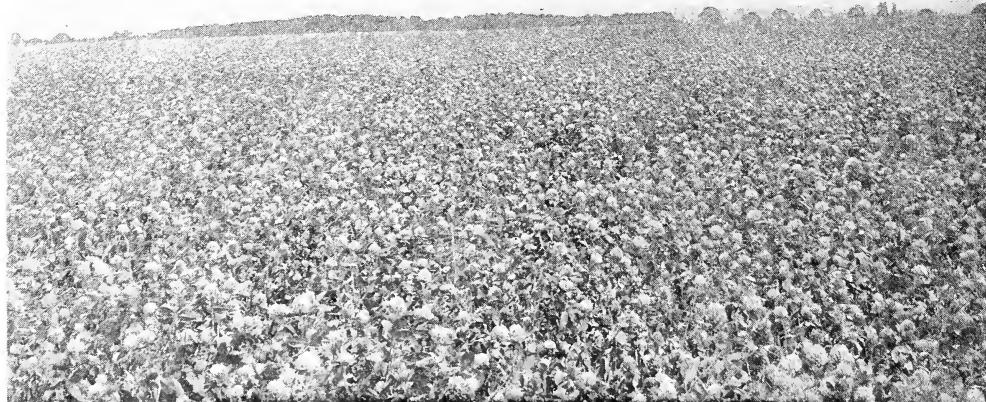
Champion White Pearl

A large, White Dent variety; very popular with our dairymen on account of the great amount of green feed it makes.

1 lb., 10c; 10 lbs., 65c



CLOVER and ALFALFA SEEDS



Field of
Red Clover

Alfalfa or Lucerne Clover

ALFALFA should be cut just before coming into bloom. The hay is especially valuable for dairy cows. As soon as cut it immediately commences to grow, and during the hottest and driest weather, when other grasses are parched and withered, it remains fresh and green and grows as rapidly as ever. On the low lands it is not an unusual thing to harvest five or six crops of hay from the same field in one season without irrigation, and the same result is obtained on high, dry lands where irrigation is resorted to. It will not succeed on hard clayey soils. Its roots, in seeking moisture, penetrate to incredible depths. The seed should be sown in the Spring, after danger from freezing the young plants is over, or in the Fall, early enough to give it a good stand before frost. **Per lb., postpaid, 35c; F. O. B. Portland, 100 lbs., \$19.50**

Dry Land Alfalfa

This new Dry Land Alfalfa will produce large, profitable crops of hay and excellent pasture on the high, dry lands of Eastern Oregon, Washington, Idaho and Utah. Dry Land Alfalfa is especially recommended for the hills and plateaus where irrigation is impossible. It comes from the **highest, driest alfalfa sections**, and is very superior seed. **Per lb., postpaid, 35c; 100 lbs., \$19.50.**

Turkestan Alfalfa

Will produce a luxuriant growth in the driest and hottest sections, without irrigation. It is perfectly hardy and will stand extreme cold in Winter without harm. It yields a very heavy and rich crop of hay and makes a permanent pasture. We have the genuine imported seed.

Per lb., postpaid, 35c; 100 lbs., \$20.50.

Write for prices on 100 lbs. or ton lots. They are always subject to market changes. See page 42
Single pound prices postpaid, for larger lots add postage at zone rate.

Clovers

White Dutch Clover

(Trifolium Repens.)

A small variety, having a white blossom. Of a vining nature, spreading rapidly. Superior for pasture and unsurpassed for the production of honey. It also makes a beautiful lawn when mixed with Blue Grass. **Per lb., postpaid, choice seed, 65c; fancy, 75c; 10 lbs., F. O. B. Portland, choice, \$5.50; fancy, \$6.25.**

Crimson or Scarlet Clover

(Trifolium Incarnatum.)

Highly recommended for pasture and fertilizing purposes. It is a thrifty annual, growing from twenty to thirty inches high. It germinates quickly, grows rapidly, and stools abundantly. Cut for hay when in full bloom. Planted in the Fall can be plowed under after blooming in the Spring and be followed with barley or potatoes. **Per lb., postpaid, 30c; F. O. B. Portland, 100 lbs., \$17.50.**

Alsike or Swedish Clover

(Trifolium Hybridum.)

A perfectly hardy perennial variety which is rapidly growing in popular favor. Excellent for hay and pasture. Valuable for bees. Resists both drought and excessive moisture. The hay of this variety is greatly preferred by some to that of Red Clover, for the reason that it is generally finer, brighter and not so dusty, making it better for horses. **Per lb., postpaid, 35c; F. O. B. Portland, 100 lbs., \$19.50; fancy, 100 lbs., \$20.50.**

Esparsette or Sainfoin

(Onobrychis Sativa.)

A deep rooting, perennial legume, extensively cultivated in dry, calcareous soils, which are too barren for Clover or Alfalfa. Sow 50 pounds per acre. **Per lb., postpaid, 30c; F. O. B. Portland, 100 lbs., \$17.00.**

Bokhara Sweet or Honey Clover

(Mellotus Alba.)

A rapid-growing, white-flowered sort; excellent for bees. Sow 10 pounds per acre. **Per lb., postpaid, 35c; F. O. B. Portland, 100 lbs., \$21.50.**

FERTILIZE WITH AIR!

RESTORE THE NITROGEN to your worn out soil and inoculate your new ground with fresh, virile, nitrogen-fixing bacteria. YOU CAN DO IT WITH

TRADE

MARK

THE STANDARD INOCULATION
FARMOGERM

HIGH BRED NITROGEN GATHERING BACTERIA
 for CLOVERS, ALFALFA, BEANS, and OTHER LEGUMES

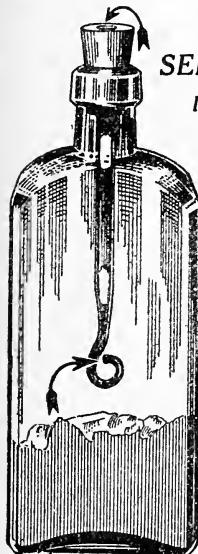
A pure culture of the most active nitrogen gathering bacteria.

 **NITROGEN** is the most important and expensive plant food. The air is four-fifths nitrogen—the soil is full of air—but plants cannot absorb it *without the aid of nitrogen gathering bacteria.*

FARMOGERM makes this vast storehouse of nitrogen quickly available. A one-acre packet costing \$1.50 used on a leguminous crop will gather and store nitrogen equivalent to 1000 pounds of nitrate of soda and at the same time greatly increase the growing crop.

Easily applied by sprinkling the seed *BEFORE PLANTING.*

SEE THAT AIR TUBE?



*It Supplies Fresh Nitrogen
 Without which the cultures
 will not live.*

When put up in sealed bottles they soon lose their vitality, becoming inactive.

FARMOGERM is guaranteed to retain its original vitality for two years, and is the *only* preparation of its kind *that is not sealed.*

*LOOK FOR THE
 GLASS TUBE
 "It Keeps Them Alive."*

To insure a stand—Increase the yield—Build up your soil—

Always inoculate seeds of

CLOVERS—ALFALFA—
 PEAS—BEANS—VETCH—
 COW PEAS and SOJA BEANS
 with **FARMOGERM.**

An eminent authority states, "I would as soon think of preparing an alfalfa field without seed as to sow the seed without inoculation." (See Farmers' Bulletin No. 257 U. S. Dept. of Agriculture.)

FARMOGERM is prepared for Alfalfa, all Clovers, Canada Field Peas, Cow Peas, Garden Peas and Beans, Soja Beans, Vetches and Sweet Peas.

PRICES--- Postpaid—Garden Size, $\frac{1}{4}$ acre, 50c; 1 acre, \$1.50; 5 acres, \$5.00
 Special Sweet Pea, trial size 25c; Regular size 50c.

 When ordering Farmogerm be sure to state just what you want to inoculate

NEW—ALL CROP FARMOGERM

A Combination
 of Beneficial
 Nitrogen Gathering
 Bacteria for all crops

**ALLCROP
 FARMOGERM**
 FERTILIZING BACTERIA
 (PROCESS PATENTED)

For Use on
 FIELD CROPS
 FRUIT CROPS
 VEGETABLES
 FLOWERS

ALLCROP FARMOGERM is a new combination of seed and soil bacteria, containing 37 varieties, the combination being beneficial for all crops, and is the most recent bacteriological product offered by the famous scientist, Dr. G. H. Earp-Thomas, who has successfully segregated the good and useful bacteria and developed the cultures which are offered in a dry vehicle that will keep them active and virile for two years.

Other legume cultures in a dry medium are guaranteed for but six months, and we know of no other culture that is recommended as being directly beneficial to all crops.

Allcrop Farmogerm—Increases the yield of any crop and enriches the soil; supplies the growing plant and increases the nitrogen in the soil, improving the quality of the crop. Aids decomposition of soil particles; hastens decayed organic matter, making plant food more available.

Price, 1 acre, $\frac{1}{4}$ lb. can, \$1.00; 5 acres, 2 lb. can, \$4.00



Diamond Grass Seed Mixtures



DIAMOND QUALITY GRASS SEEDS are the choicest new crop seeds, recleaned and tested for purity and germination, and only those stocks that grade above the established standards are offered to our customers.

Our **Special Mixtures** have been carefully worked out by the tests and observations of practical experts familiar with the requirements and conditions to be met, and will give the best results possible to obtain for the uses for which they are recommended.

"Diamond" Fancy Lawn Mixture

To have a good lawn the soil must be fine and rich, and well leveled. Then the best seed obtainable should be used. Plant any time from September until late Spring, depending upon the weather and soil conditions. Raking in the seed is advisable, and rolling greatly improves the turf. In watering your lawn soak it deeply and not too often, as light watering every day brings the roots close to the surface, where they quickly burn or dry out. You must not expect to make a fine lawn with cheap seed. The best lawn grass mixture will cost more at first than the poorer substitute, but it will be found much cheaper and more satisfactory in the end. Our "Diamond Quality" Fancy Mixed Grass Seed is prepared from the choicest recleaned Grass Seeds that have been carefully selected for their fineness and deep rooting, close growing habits and seasonable qualities, producing an ideal dense, velvety turf of lasting quality that remains green throughout the year. *Sow one pound to 400 square feet, 10 to 15 pounds to a 50-foot lot.*

Growing tests have proved our "Diamond Quality" Lawn Grass to be superior to any other mixture for our Western soils and climate; it is also free from chaff and foul seeds, weighing 23 pounds to the measured bushel. This is a guarantee of clean, plump seeds, as cheap chaff seed is very light.

Single lb., postpaid, 45c; not prepaid, lb., 35c; 10 lbs., \$3.25.

FINE MIXED LAWN GRASS.—For use where a temporary lawn must be quickly prepared.

and if kept closely cut will be lasting and have a handsome appearance. A good, clean mixture.

1 lb., postp'd, 35c; not prep'd, 10 lbs., \$2.20.

DIAMOND SHADY LAWN MIXTURE.—Under trees, on the north side, and between houses, or in any shaded place, our "Shady Lawn" will give splendid satisfaction. But in seeding such places it is best to dig the ground up well and treat it with a little ground lime-rock, or air-slaked lime (using 5 or 6 pounds to 100 square feet), as ground that does not receive the sunlight is often soured. An occasional application of our Lawn Fertilizer will stimulate the growth and improve the color.

Single lb., postp'd, 40c; not prep'd, 30c; 100 lbs., \$27.00.

GOLF MIXTURES

OUR GOLF MIXTURES are prepared for the special purposes for which they are intended and are so blended as to give a tough, lasting, and evergreen turf that will stand wear and rough usage.

We have had splendid success in handling the difficult problems involved in making and maintaining large plantings, and are always ready to aid in the solving of your special planting problems.

PUTTING GREEN MIXTURE.—

Single lb., postp'd, 40c; not prep'd, 30c; 100 lbs., \$29.00.

TEE-ING GROUND MIXTURE.—

Single lb., postp'd, 45c; not prep'd, 35c; 100 lbs., \$29.00.

DIAMOND FAIR GREEN MIXTURES.—The problems to be met in plantings of this character, covering wide areas where the soil is not always of the best, require special study, and the mixtures must be varied to suit the conditions and requirements. Call or write. Your inquiries will have careful attention and we can save you any unnecessary expense.

SPECIAL SHADY LAWN MIXTURE GROWING UNDER THE FIR TREES at HOLLIDAY PARK, Portland, Ore. See inside back cover.



"Diamond
Quality"

GRASS SEEDS

Grass Seed Prices subject to change without notice. See note top of page 42.

Special Pasture Mixtures

No. 1. For Good Loamy Soil.

A mixture of Grasses and Clovers, prepared especially for good, loamy soils, that will give satisfaction as a permanent pasture, or for mowing for mixed hay. For pasture, sow 20 pounds per acre. Price, postpaid, 35c per lb. By freight or express, 10 lbs., 24c per lb.; 15 to 50 lbs., 23c per lb.; 100 lbs., \$22.00.

No. 2. For Light Sandy Soil.

An extra fine mixture for sandy or light soils. This will make a good, strong turf, that under ordinary circumstances should last for many years. Sow 20 pounds per acre.

Price, postpaid, 40c per lb. By freight or express, 10 lbs., 28c per lb.; 15 to 50 lbs., 27c per lb.; 100 lbs., \$26.00.

No. 4. For Dry Land.

Mixed especially for the regions between the Cascades and Rocky Mountains, and on good, common wheat land. Try this mixture, as we believe that it will give you best possible results. Sow 20 pounds per acre.

Price, postpaid, 35c per lb. By freight or express, 10 lbs., 24c per lb.; 15 to 50 lbs., 23c per lb.; 100 lbs., \$22.00.

No. 8. For Arid or Alkali Land.

Particularly for arid alkali lands. This mixture is composed of varieties that have proven to be the best for the soils mentioned. Sow 20 pounds per acre.

Price, postpaid, 35c per lb. By freight or express, 10 lbs., 26c per lb.; 15 to 50 lbs., 25½c per lb.; 100 lbs., \$25.00.

MIXTURES FOR BURNED-OVER LAND.—In grading and cleaning grasses and clovers, we frequently find combinations that are difficult of separation, and while the seeds are often of excellent germination and quality, they cannot profitably be separated and cleaned, so we blend them to produce pasture mixtures suitable for sowing on burns and logged-off land, which at the price are splendid values and very economical for such purposes.

Price, 100 lbs., \$9.00

Crested Dogs Tail

(Cynosurus Christatus.)

A perennial grass with short, narrow leaves; valuable for lawns or pastures on dry, light land; makes excellent sheep pasturage. Use 20 pounds per acre if sown alone.

Per lb., 50c, postpaid; 10 lbs., \$4.00

Canadian Blue Grass

(Poa Compressa.)

Recommended in all pasture mixtures on dry soil; thrives well on clay or hard trodden and poor soil. Sow 28 pounds per acre.

Per lb., 30c, postpaid; 100 lbs., \$16.00

English Rye Grass

(Lolium Perenne.)

A strong-growing, hardy perennial grass, noted for its nutritive qualities. It is equally valuable for both grazing and hay. Forty pounds per acre.

For Lawns this is used and recommended by many gardeners. If sown thickly, it makes a fine lawn, and for large grounds and parks it is very successful.

Per lb., 25c, postpaid; 100 lbs., \$11.00

No. 9. For Sowing in Shady Places or Among Growing Trees.

This is a mixture of grasses especially suitable for sowing in wooded places, being made up of varieties that are superior for such a purpose.

Price, lb., 35c, postpaid; by freight or express, 10 lbs., 24c per lb.; 15 to 50 lbs., 23c per lb.; 100 lbs., \$22.00.

No. 10. Hay and Pasture Mixture for Dry Hill Land.

Especially suited to the dry sections, such as parts of Southern Oregon, Eastern Oregon, Eastern Washington, and Idaho. This mixture is made up of varieties that can endure a great change of temperature from heat to cold, and at the same time will make a splendid mixed hay.

Price, lb., 35c, postpaid; by freight or express, 10 lbs., 25c per lb.; 15 to 50 lbs., 24c per lb.; 100 lbs., \$23.00.

No. 11. For Grazing Purposes.

This is a mixture of grasses only, being made up for the benefit of those who wish a mixture without Clover, and will make a fine permanent pasture, but is not intended for hay.

Price, lb., 35c, postpaid; by freight or express, 10 lbs., 23c per lb.; 15 to 50 lbs., 22c per lb.; 100 lbs., \$21.00.

No. 12. For Burned-Over Bottom Land, or Land Inclined to be Rather Damp.

This is a mixture that will do well either for hay or for permanent pasture on land that is too wet for many of the grasses and clovers.

Price, lb., 30c, postpaid; by freight or express, 10 lbs., 20c per lb.; 15 to 50 lbs., 19c per lb.; 100 lbs., \$18.00.

Kentucky Blue Grass

(Poa Pratensis.)

One of the best grasses for permanent pasture, furnishing a constant supply of the most nutritious feed during the greater part of the year. Sow 28 pounds per acre.

For Lawns.—Blue Grass is used very extensively for lawns and is found in all lawn grass mixtures. Sow 1 lb., to 400 sq. feet if used alone.

Fancy, per lb., 30c, postpaid; 100 lbs., \$15.50
DIAMOND FANCY, per 100 lbs., \$16.50

Bermuda Grass

(Cynodon Dactylon.)

Suitable only for climates where the Winters are not below the freezing point. It stands the hottest and driest season. Sow six pounds per acre

Per lb., 75c, postpaid; 10 lbs., \$6.00

Red or Creeping Fescue

(Festuca Rubra.)

Forms a close turf and is valuable for lawn and golf mixtures; thrives in sandy soils and along the Coast. (14 lbs. to the bushel.)

Per lb., 50c, postpaid; 10 lbs., \$4.00



GRASS SEED — Continued

Grass Seed prices subject to change without notice. See page 42.
Single pound prices postpaid, for larger lots add postage at zone rate.

Creeping Bent Grass

(Agrostis Stolonifera.)

Well adapted for sandy pastures near the Coast, and good for pasture on low lands. If sown alone, use 25 pounds per acre. Excellent for lawns. Use 12 to 15 pounds per 50-foot lot.

Per lb., 75c, postpaid; 10 lbs., \$6.50

Rhode Island Bent

(Agrostis Canina.)

Resembles Red Top. Makes a close sod; valuable for permanent pastures and meadows. Twenty-eight pounds per acre. For lawns, use 12 to 15 pounds per 50-foot lot. Gives good results.

Per lb., 65c, postpaid; 10 lbs. \$5.50

Italian Rye

(Lolium Italicum.)

A quick-growing grass, attaining a height of 2 $\frac{1}{2}$ to 4 feet; very desirable for temporary meadows or pastures (will last from two to six years). Thrives best on soils that are slightly moist, and will even stand considerable overflow. Grows easily and bears an abundance of foliage that makes the best and sweetest hay imaginable. Sow 40 pounds per acre.

Per lb., 25c, postpaid; 100 lbs., \$12.50

Sweet Vernal

(Anthoxanthum Odoratum.)

Valuable to put in pasture mixtures and lawn grass on account of its earliness and its delightful fragrance when in bloom. Thrives under all growing conditions, but is only recommended for use in mixtures. If alone use 28 lbs. per acre.

ANNUAL, per lb., 45c, postpaid; 100 lbs., \$33.00

PERENNIAL, lb., 70c, postp'd; 100 lbs., \$50.00

Tall Fescue

(Festuca Elatior.)

Succeeds best in moist alluvial and strong clayey soils; is very productive and lasting; valuable for permanent pasture, is relished by stock and on rich land makes fine hay—height 3 to 4 feet; 22 lbs. bu. to acre: 19 lbs to bu.

Per lb., 65c, postpaid; 10 lbs.. \$5.00

Wood Meadow Grass

(Poa Nemoralis.)

Thrives in shaded situations in woodland parks or lawns where other grasses would not grow. Is early, permanent, hardy, resists heat and cold and makes a good turf, and is good for pasture; 3 lbs. to acre: 19 lbs to bu.

Per lb., postpaid, 60c

Timothy

(Phleum Pratense.)

This is the most valuable of all grasses for hay. Thrives best on moist, loamy soil. Sow early in the Spring or Fall. Sow 15 to 20 pounds per acre.

Choice, Per lb., 25c, postpaid; 100 lbs., \$8.50

Dta.. fancy, lb., 25c, postpaid; 100 lbs.. \$9.50

Orchard Grass

(Dactylis Glomerata.)

One of the most valuable of all the cultivated grasses, blooming with Red Clover, and making with it admirable hay. As a pasture grass it is more productive than any other, and does best under close feeding. Sow 28 pounds per acre.

Fancy Eastern, per lb., 35c, postpaid; 100 lbs., \$23.50

Imported, lb., 40c, postpaid; 100 lbs., \$24.00

Red Top

(Agrostis Vulgaris.)

A good perennial grass. Generally sown for permanent pastures. Does best on moist or even marshy land. If the ground is not overflow land it is advisable to mix it with Meadow Fescue, Orchard Grass or Alsike Clover. Sow 28 pounds per acre chaff seed; 14 pounds hulled.

CHOICE UNHULLED, per lb., 25c, postpaid; 100 lbs., \$14.00

DIAMOND FANCY HULLED.—A very superior grade of Red Top that is free from chaff and light seed. **Per lb., 30c, postpaid. 100 lbs., \$18.50**

Water Meadow Grass

(Poa Aquatica.)

An excellent pasture grass for wet situations, does well in bogs and marshes. Twenty lbs. to acre. Eleven lbs. to bu. **Per lb., postpaid, 70c**

Fine Leaved Fescue

(Festuca Ovina Tenuifolia.)

Grows well on dry or poor soil and is much used for lawns. Plant 30 lbs. to the acre. (Bu. 14 lbs.)

Per lb., postpaid, 65c

Hard Fescue

(Festuca Duriuscula.)

Fine, rather dwarf, justly noted for its drought resisting qualities. Valuable as a pasture for sheep. Sow 20 pounds per acre.

Per lb., 45c, postpaid; 10 lbs., \$3.25

Sheep's Fescue

(Festuca Ovina.)

Grows freely in high, dry and open pastures. Its chief merit is for sheep pasture. Thirty-five pounds to the acre.

Per lb., 65c, postpaid; 10 lbs., \$5.50

Meadow Fescue

(Festuca Pratensis.)

Perennial; grows three to four feet high. Roots deep, thus resisting drought. It succeeds on any ordinary soil; yields a heavy crop of superior hay; one of the best grasses for pastures, being valuable to mix with other kinds. Sown alone, use 40 lbs. per acre. **Per lb., 30c, postpaid; 100 lbs., \$18.00**

Tall Meadow Oat Grass

(Avena Elatior.)

Often attains a height of three to four feet by the middle of June. Makes splendid hay and thrives on sandy loam, but makes its best growth where there is some clay. Can be fed as a pasture grass, and will generally bear cutting three times. For mixing with Perennial Rye and Alfalfa for sandy soils it is excellent. Sow about 30 to 40 pounds per acre alone or half that amount if mixed with the above varieties.

Per lb., postpaid, 35c; 100 lbs., \$23.50

**FOR SPECIAL MIXTURES for BURNS, DRY or WET LANDS
 —Temporary or Permanent Plantings for Hay or Pasture — WRITE US**

→ A "CLIPPER" Grain Cleaner improves the quality and increases the yield of any grain crop. When you buy a tanning mill BE SURE YOU GET A "CLIPPER." The mill with the "VERTICAL BLAST." Special Catalog and Full Information on Request.



GRAIN AND FIELD SEEDS—Continued

PRICES SUBJECT TO MARKET CHANGES—See Page 42

Cheat Seed

(*Bromus Secalinus*.)

Cheat yields a good crop of hay, especially on low or moist soil and will stand considerable overflow without harm. It makes an excellent hay for cows or horses, but should be cut before it gets too ripe. Sow in the Fall or early Spring same as oats, and about 100 pounds per acre.

Per lb., 15c, postpaid; 100 lbs., \$2.25

Salt Bush

This wonderful forage plant will grow freely in arid and alkali lands that will produce no other vegetation, yielding a marvelously liberal foliage, which is eagerly eaten by all kinds of stock. One pound of seed will plant an acre if evenly scattered over the surface. The seed should be mixed with ten times its weight of sand or ashes to facilitate its distribution. Sow the seed in the Fall or Spring before a rain, if possible, on well pulverized soil, and cover it lightly. If desired, plants may be grown and transplanted when two or three inches high, six to seven feet apart.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 40c; lb., \$1.25 postp'd

Special price in quantity.

Rough-stalked Meadow Grass

(*Poa Trivialis*.)

A most valuable grass which flourishes in moist, rich soils. Roots are perennial, but soft; foliage freezes down.

Per lb., 85c, postp'd. Write for prices

Reed Canary Grass

(*Phalaris Arundinacea*.)

Will Grow on the Wettest Land You Have.

A grass that will grow on stiff, wet land, even if the ground is overflowed for a month or six weeks. Makes a good hay if cut early in the season. Sow 10 pounds per acre.

$\frac{1}{4}$ lb., 35c; lb., 85c, postpaid

Rape, Dwarf Essex

One of the best forage plants, producing immense quantities of green feed when grass and other crops are dried up. Highly recommended by Professor Shaw and other eminent authorities. Has yielded ten tons of green forage per acre with a food value double that of green clover. Excellent pasture for all stock, and fine green feed for chickens. Thrives on all soils and is ready for use in six to eight weeks from time of sowing. Also valuable for plowing under. Sow same as turnips from May until September, or sow with grain. Use four pounds per acre in drills, eight pounds broadcast.

Price, lb., 25c, postpaid. Frt. or Exp., 10 lbs., \$1.50; 100 lbs., \$13.50.

Rye, For Seed

BEARLESS RYE.—This splendid variety is extremely hardy, yields heavily and being free from beards, is to be preferred for stock feeding. Can be planted Fall or Spring.

Single pound, postpaid, 15c; 100 lbs., \$3.00

COMMON BEARDED RYE.—Planted extensively in both Spring and Fall.

Per lb., 15c, postpaid; 100 lbs., \$2.95

Write for prices in larger lots.

Sunflower

MAMMOTH RUSSIAN.—The largest and most productive variety. It makes one of the very best of foods for poultry; a great egg producer. Per $\frac{1}{4}$ lb., 10c; lb., 25c, postpaid; 10 lbs., 70c

“Diamond Quality” High Grade Fertilizers

It is established beyond question that different crops remove from the soil definite amounts of different Fertilizing elements, and it is the aim in manufacturing our “Diamond Quality” Fertilizers to supply these elements in the proportion which the crops require.

We do not make a fertilizer for every crop, as many plants require nearly the same proportion of foods, and though we have named our “mixed fertilizers” after the most important crop for which they are used, they can also be applied equally as well to others, as recommended in our booklet “Fertilizers.”

Mesquite

(*Holcus Lanatus*.)

It is usually sown on virgin soil, without cultivation, after the ground has been burned over. Sow about 35 pounds to the acre chaff seed; hulled 15 pounds per acre.

FANCY HULLED Seed, per lb., 30c, postpaid:
100 lbs., \$17.00.

Wild Rice—*Zizania Aquatica*

For Planting in Duck Ponds.

And around hunting grounds to furnish food for wild fowl, ducks, geese, etc. Fresh seed supplied in season. Write for information and prices.



Emmer or Speltz

Emmer—*Triticum Dicoccum*

Often Mistakenly Listed as Speltz.

Similar to barley in growth, but produces two grains in a spikelet. A comparatively new and profitable crop, yielding 50 to 100 bushels of grain, or four to six tons good hay per acre. Thrives well on poor soil, and dry weather seems not to affect it. After threshing, the straw makes good feed. Sow in Spring at rate of 75 to 100 pounds per acre. Emmer is often listed and referred to as “Speltz.” We offer choice, recleaned seed of the true variety.

Price, lb., 15c, postpaid; 100 lbs., \$3.75



FARM AND FIELD SEEDS—Continued.

Prices Subject To Change Without Notice. See Page 42.
Single Lb. Prices Postpaid, for Larger Lots Add Postage at Zone Rates.

Vetches or Tares—Oregon's Greatest Forage Plant

SAND, or Winter Vetches—(*Vicia Villosa*).—This variety thrives on poor, arid, sandy soils. It is sown either in the Fall or early Spring, and is generally mixed with rye, which serves to support the plants. It grows to a height of three or four feet, and can be cut twice; first, as soon as the bloom appears, and afterward for seed. The plant is perfectly hardy and makes a very untriforous food.

Per lb., postpaid, 30c; F. O. B. Portland.
100 lbs., \$18.50.

White Spring or Pearl Vetch

White Pearl Vetch is coming into great favor and is being extensively used for Spring planting as splendid results can be had from sowings made as late as April. The yield being fully equal in every way to that obtainable from common vetch (*Vicia sativa*) and of fully as great feeding value.

The advantage of later Spring planting makes White Pearl Vetch specially desirable and more sure to give returns than common Vetch under many planting conditions, and it has given better results on the light sandy cut-over lands of Washington and Idaho.

Our seed crop yielded 56 bushels to the acre sown with $\frac{1}{2}$ oats. Per lb., postpaid, 20c; F. O. B. Portland, 100 lbs., \$7.50.

Lentils

Succeed best in dry, sandy soil. A leguminous annual, the seeds of which are valuable for pigeons and are used largely for soups. The leafy stalks make good forage.

Per lb., postpaid, 30c; F. O. B. Portland.
10 lbs., \$1.75.



COMMON VETCH—(*Vicia Sativa*).—One of the best forage plants that can be grown on the Pacific Coast. Often called Fall Vetches. It furnishes an abundance of excellent feed, either green or cut and cured for hay. The seed should be mixed with an equal weight of some variety of wheat, oats or rye having a stiff straw, and the mixture sown at the rate of two bushels per acre. Vetches weigh 70 pounds per bushel. Sow in the Fall or early Spring.

Per lb., postpaid, 15c; F. O. B. Portland
100 lbs., \$4.50.

Field Peas

Field Peas are a very profitable crop and are grown here very extensively. They can be grown alone or with oats. When planted with grain and cut green they make a large amount of very rich feed; also very valuable for enriching the soil if plowed under. The dry peas make excellent hog-feed and are quite fattening. Sow, if alone, 120 pounds to the acre; if with other grain, 80 pounds.

White Canadian

A leading kind; seed almost white; a heavy cropper.

Per lb., postpaid, 20c; F. O. B. Portland.
100 lbs., \$6.00.

Blue Prussian

Very much like the above, except in color. This variety is largely sold dried for soup peas.

Per lb., postpaid, 20c; F. O. B. Portland.
100 lbs., \$7.00.

Cow Peas

Are really small beans of vigorous vine habit and heavy foliage of great nutritive value, yielding five to nine tons of green feed per acre, or can be cut and cured like clover. They are great nitrogen gatherers and one of the best fertilizers when turned under. Sow two bushels per acre.

WHIP-POOR-WILL.—Upright, or bush growth, earliest maturing, easily harvested. Per lb., postp'd, 20c; F. O. B. Portland, 10 lbs., 85c; 100 lbs. \$7.25

CLAY.—Of vigorous growth. Excellent for ensilage; can be planted in hills with corn. Per lb., postp'd, 20c; F. O. B. Portland, 10 lbs., 85c; 100 lbs., \$7.00

NEW ERA.—Early, prolific, of upright growth, also makes good dry fodder.

Per lb., postpaid, 20c; F. O. B. Portland, 10 lbs., 85c; 100 lbs., \$7.00

Millets

Sow in April, May or June, 12 to 15 lbs. for seed, or 20 to 30 lbs. for hay per acre

GERMAN OR GOLDEN.—An improved variety, yielding a larger crop of seed than the Common Millet. It is also taller than the Common, and yields a heavier crop of hay.

HUNGARIAN.—A dwarf annual Millet. It is finer than the Common or German Millets, but produces a closer stand and yields almost as much per acre as the taller varieties. Superior for hay.

NEW SIBERIAN.—New and wonderfully productive. Extremely hardy, and about two weeks earlier than the German Millet, growing four feet in height.

COMMON.—A well known variety growing from three to four feet high; has broad blades and strong stalks.

BROOM CORN MILLET.—Is somewhat variable in character and is divided into several varieties, one of which is sometimes called Hog Millet, as the seed is often used to feed hogs. All of this class are better adapted to produce seed than for pasture.

EARLY FORTUNE MILLET.—Has given astonishing yields of both seed and fodder. It is very early and is claimed to be rust-proof. The fodder can be fed to horses and other stock without injury, even after the seed has formed which cannot be done with most of the millets. The seed is large and of a beautiful red color.

PRICES—All Varieties Single Pound 20c Postpaid.
Write for prices in larger lots—market very unsettled.

A "CLIPPER" Grain Cleaner improves the quality and increases the yield of any grain crop. When you buy a fanning mill be sure you get a CLIPPER. Special Catalog FREE

GRAIN AND FIELD SEEDS—Continued

The Non-Saccharine Sorghums

Wonderfully productive and of great value as a forage, ensilage or grain crop in dry sections.

THE varieties here offered represent the best selections and are highly recommended. They are best drilled in—using 3 to 8 lbs. per acre, depending on variety and condition. Plant in the late Spring after the ground is warm. Cultivate often, throwing the earth toward the plants.

Milo Maize

This is one of the sorghums similar to Kaffir corn. Grows erect, with thick, close-jointed stalk. Height, 4 to 7 feet. Heads are very large, giving a heavy grain yield; is drouth resistant, and succeeds on alkali soil. Plant late when ground is warm, 3 to 6 pounds per acre.

Per lb., postpaid, 20c; 100 lbs., \$6.00

Broom Corn—Dwarf Evergreen

Grows from 4 to 5 feet high and makes straw of finest quality, being almost, if not entirely, free from crooked brush.

Per lb., postpaid, 20c; 100 lbs., \$8.00

SUDAN GRASS

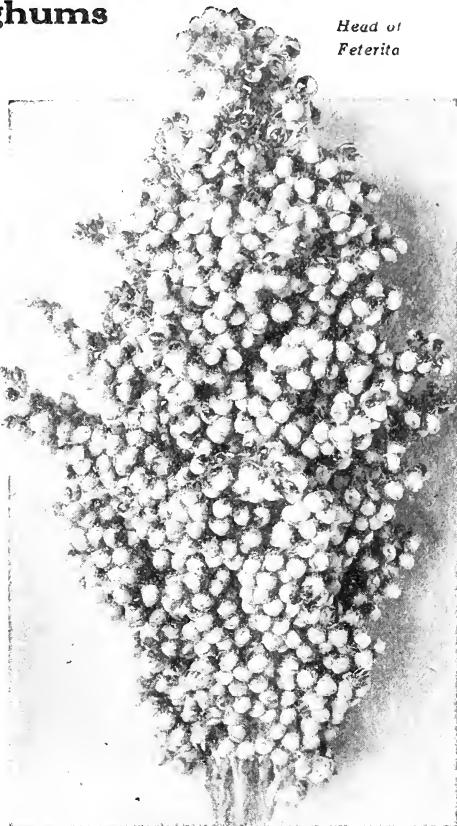
The greatest drouth resisting forage crop.

Sudan Grass was introduced from Egypt in 1909 by the U. S. Dept. of Agriculture, and has given great promise of becoming a valuable addition to our forage grasses, especially in some sections. It is believed to be the original type of our cultivated sorghums, and being an annual, will never become a pest like Johnson Grass, which it somewhat resembles.

All stock relish it, and no harmful effects have followed where it has been fed. Under favorable conditions, it grows from 7 to 9 feet, having luxuriant foliage and small stems. While thriving under dry conditions, excessive moisture will not harm it, but like all of the sorghum family, it is easily damaged by frost. The yield will depend upon the length of the season, a single cutting giving about a ton per acre, and the number of cuttings will depend upon the season. Where growing conditions are favorable the stubble makes excellent green pastureage. In the South three or four cuttings are not uncommon.

CULTURE.—Plant in cultivated rows, in close drills or broadcast. Cultivated rows 36 inches apart require from 1½ to 3 pounds of seed per acre, and in arid regions this is the best method. Where rainfall is ample, and it can be grown for hay, sow in drills 18 inches apart, using 6 pounds of seed per acre; for broadcast, using 15 to 20 pounds. Never sow until danger of frost is past and the ground is warm. Cut for hay as soon as fully headed. If grown for seed, do not cut until the seed is fully matured, the first cutting being best for this purpose. As Sudan Grass crosses readily with all varieties of cultivated sorghums and the seed resembles Johnson Grass very much, great care should be exercised in securing only pure seed. Lb., 50c, postpaid.

Write for market price on larger lots.



Head of
Feterita

FETERITA

This is the most recent of the non-saccharine sorghums to command the attention of "dry farmers" on account of its wonderful yield and drouth resistant qualities, being 20 to 40 days earlier than Kaffir corn, and has given immense crops in the driest seasons without having received a drop of rain. Makes splendid fodder as well as giving a good grain yield. Try Feterita.

Per lb., postpaid, 25c; 100 lbs., \$7.50

Egyptian Corn

Also Called Jerusalem Corn or Dhoura

One of the non-saccharine sorghums, requiring the same growing conditions. Succeeds well in dry sections. Producing small heads on side shoots up to eight on a stalk, the seed is larger than Kaffir corn. Yield is heavy. Makes fine chicken feed. Plant three pounds per acre.

WHITE, Per lb., postpaid, 20c; 100 lbs., \$6.50

Kaffir Corn

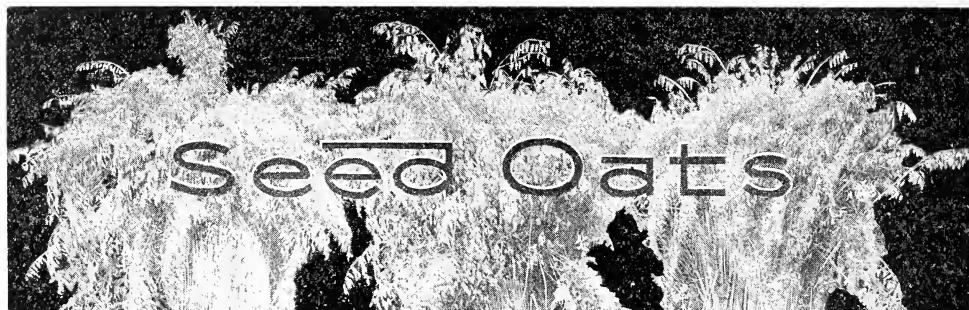
An excellent fodder plant. Grows four to five feet high; upright stalk, with numerous large leaves. Greatly relished by cattle and horses. The seed crop is also heavy, sometimes yielding 60 bushels to the acre. It does best sown in drills three feet apart, six to eight pounds per acre.

Per lb., postpaid, 20c; 10 lbs., 80c

Sugar Cane or Sorghum

EARLY AMBER.—A valuable crop to grow for fodder or ensilage, as it furnishes an immense tonnage to the acre. When fed down while young it makes a rapid second growth.

Price, postpaid, per lb., 20c; 100 lbs., \$6.25



THE production of fine seed oats has always been one of our leading specialties and we consider them to be the most profitable and satisfactory grain crop, being indispensable to stock and dairymen, and their use as a food is constantly increasing.

Planted in season, oats rarely fail, are easily and cheaply grown, and the valuable new varieties which we offer will double the number of bushels per acre that you would get from common seed oats, which means half the cost of production, or twice the profit.

They will mature in July from Spring sowing, giving quick returns and leaving the soil in good condition for Fall planting.

Of what other grain crop can so much be said, and what other crop is more necessary and valuable to the dairy and stock man?

We offer select, recleaned, well-matured seed oats of standard varieties, suitable for this section, and our own varieties, "SHADELAND ECLIPSE" and "SHADELAND CLIMAX," the earliest and most vigorous, heaviest yielding oats ever grown anywhere. (See next page).

Shadeland Seed Oats

SHADELAND OATS are grown especially for planting purposes, and each year typical heads are selected in the field by hand, and from these new seed is grown for revitalizing and perpetuating the type, and maintaining the standard. The Latest Selection from the splendid strain of "SHADELAND" Side Oats is "ECLIPSE" an improvement over "Challenge," which in turn took the place of the original type, "Shadeland Wonder," from which famous parent the marvelous "SHADELAND Side Oat ECLIPSE" is the Third Generation by reselection.

New—Hulless Oats

MANY VARIETIES of HULLESS OATS have been tried by the Department of Agriculture, but very few yield well enough to pay the grower.

"SHADELAND" HULLESS like all SHADELAND oats yields heavily. Mr. Nairn reports that from 300 lbs. of seed 7560 lbs. of oats were harvested, and a single pound planted in a test row, 100 yards long, gave 100 lbs. of cleaned oats.

HULLESS OATS grow like ordinary oats with a branching head but thresh out clean, the grain being larger than the kernel of common oats and ready for rolling or milling just as they come from the cleaner, retaining all of their richness and flavor—and on "Shadeland Farm" where everybody is Scotch and expert judges of oat porridge *Hulless Oats* are served twice daily. You can make your own oatmeal on any gristmill and it will also cook quicker than other oatmeals.

NEW HULLESS OATS. Stool freely, stand up well and will thrive wherever oats can be grown. They are drought resistant and ripen in about 100 days from seeding, giving about 50 bushels per acre, weighing about 54 lbs. to the measured bushel. Sow at rate of 40 to 50 lbs. to the acre.

Give Shadeland Hulless a Trial.

**Price: 1 lb., postpaid, 25c; 10 lbs., F.O.B. Portland, \$1.35;
100 lbs., \$12.00.**

 **WHICH IS YOUR CHOICE?** The difference in the cost of planting and harvesting an acre of common oats yielding 20 to 50 bushels and our record-breaking "SHADELAND" oats that give from 80 to 135 bushels per acre is about \$1.50; in other words, it costs about as much to plant, care for and harvest oats that yield only half a crop as it does to reap a real harvest.

THINK THIS OVER



**Sheaf of Prize Winning
SHADELAND OATS**



SHADELAND SEED OATS

*Have won FIRST wherever exhibited
every year since their introduction, 1902*



Special Medal and Diploma, Panama-Pacific Exposition, San Francisco, 1916

FOR 14 YEARS "SHADELAND OATS" have never failed to produce a record crop — not small patches under favorable conditions but big average yields throughout entire fields such as the Polk County record of **135 bushels and 10 pounds per acre of CLIMAX**, reported by Mr. Nairn as being grown by one of his neighbors. These Oats also hold the record for **weight per measured bushel, 48 lbs.** (the average yield was figured by the 32 lb. standard). Mr. Scramlin of Macksburg grew **126½ bushels of Eclipse per acre** last season over a 14 acre field. The record yield for Lincoln County was grown near Siletz, **125 bushels per acre** over a field of 41 acres, by Mr. Raddant. These Oats weighed 44 pounds to the bushel. H. L. Stephens of Coquille grew a crop in 1909 that ran **135 bushels to the acre**; and many reports come to us of yields of 100 bushels per acre and upward.

Shadeland Eclipse — Side Oat — Is a re-selection from our famous "Shadeland Challenge," and is living up to its name by "eclipsing" all competitors, including the parent stock, being equally as vigorous and early and the massive heads are uniformly larger and filled with plump, heavy thin-hulled oats of finest milling quality.

The yield on light dry soil where our seed crops are grown, runs from 75 to 85 bushels per acre and on moist bottom land 125 bushels per acre is not uncommon.

"**SHADELAND ECLIPSE**" can be planted Fall or Spring, west of the mountains (Fall plantings should be made on well-drained soil), but in severe climates early Spring planting is best. Matures in 90 to 100 days, and can always be harvested before the Fall rains. Their beautiful bright color and plumpness commanding the top price in the market. Try this grand new side oat.

**Price: 3 lbs., 50c, postpaid. Freight or Express, Half Bushel.
\$1.00; Bushel, \$1.50; 100 lbs., \$3.75.**

Shadeland Climax — Tree Oat — For early Spring planting where seasons are short, in high, dry altitudes, and where quick growth and early maturity are demanded, "CLIMAX" will give you a bountiful harvest of the finest oats you ever saw. The white grains are uniformly large, plump and full with a very thin hull and are often borne 3 in a spikelet, which partly accounts for its wonderful yield.

In our trials "SHADELAND CLIMAX" has not been injured by severe early freezing and later drought, but has stood up, green and vigorous, yielding one hundred bushels per acre on hill land when oat crops throughout the same section were stunted and dried up.

If you live West of the Cascade Mountains you can plant "CLIMAX" Fall or Spring, any time the ground is fit, but where the climate is severe, Spring plantings are best.

**Price, postpaid, 1 lb., 20c; 3 lbs., 50c; Frt. or Exp., ½ bu.
\$1.00; bu., \$1.50; 100 lbs., \$3.75.**

SENATOR — A New Garton Side Oat — Senator is highly recommended by the originators for its extreme earliness and great fertility — and is especially adapted to heavy land.

Report from a dry season: "SENATOR OATS drilled May 14, on land prepared for clover, had but one or two light rains from planting until harvest, 93 days from planting. Earlier seeding would have filled them even better. They also had several days of hot winds before being bound, but threshed out beautifully, yielding **96 bushels per acre**. Seeded on good land this oat will do well, and where oats are liable to lodge SENATOR will stand up — has stiff straw. Note the size of grains and the fine color". — C. D. NAIRN.

For exhibitions the large grains and big heads of SENATOR make a fine showing.

**Postpaid, 3 lbs., 50c; by frt. or exp., ½ bu., \$1.00; bu., \$1.50;
100 lbs., \$3.75.**

N. P.
LAND
SHOW
Seattle
1916
5
Firsts



Oregon
State
Fair
1916
4
Firsts



Polk
County
Fair
1916
6
Firsts



TO KNOW that you are getting the genuine "SHADELAND" Oats from the originator, always buy direct from our store. We are SOLE distributors and the vitality and true types are maintained by intelligent, scientific care and selection. Prices are so low that you can not afford to risk any other seed oat.



Seed Field of "Shadeland Oats," Land Mr. C. D. Nairn, the Grower.

Standard Seed Oats

Choice Recleaned Stock of the following varieties can always be supplied.

Swedish Red

A comparatively new tree Oat from Sweden having a soft hull and fine soft straw which is ideal for hay. This is the Oat grown so extensively in Northern California and along the Southern Oregon Coast. Sow in Fall or Winter. Red Oats always bring a good price in the market.

Price, postpaid, 1 lb., 15c; 100 lbs., \$2.75

Black Oats

Black Oats are very hardy and almost rust proof, thriving on wet land as well as being drought resistant on light soils—are much used as a hay oat from spring plantings but are best fall seeded for grain.

Price, per lb., postpaid, 15c; 100 lbs., \$2.75.
f. o. b. Portland.

Challenge Side Oat

We have a choice lot of this splendid heavy yielding variety suitable for Spring or Fall planting, where the winters are not severe. A vigorous, early maturing oat that will stand up under most any growing condition and give a good yield wherever oats will grow.

Price, per lb., postpaid, 15c; 100 lbs., f. o. b.
Portland, \$3.00.

White "Side Oats"

For those who prefer a side oat we offer a fine grade of recleaned white "Side" Spring oats. Samples and prices on request, as the market is very uncertain and prices cannot be guaranteed to remain the same as when this catalog is printed.

Price, 1 lb., postpaid, 15c; 100 lbs., \$2.50.

Gray Winter

This Oat is planted extensively throughout the Northwest as a Fall or Winter Oat. Is well and favorably known, being a good yielder, and the Oats are large and plump.

Price, postpaid, 1 lb., 15c. Frt. or Exp.
100 lbs., \$2.50.

White Seed Oats

We always try to have a selected re-cleaned stock of No. 1 White Seed Oats which we can supply at market prices. Write for samples and prices or the quantity you require, or send in your order. You will always get full value for money sent.

Price, postpaid, 1 lb., 15c; 100 lbs., \$2.50.

Swedish Select

A popular hardy tree oat that can be depended upon to give a good yield, is vigorous and remarkably free from the attack of rust or smut. Choice recleaned seed.

Price, per lb., postpaid, 15c; 100 lbs., f. o. b.
Portland, \$2.75.

Treat Your Seed with Formaldehyde

A Preventive for Smut in Grain—Seab and Fungus Diseases of Potatoes

Formaldehyde is a clear chemical, resembling water, but has a peculiar odor. It is sold by the pound (pint). One pound is sufficient to treat 40 to 50 bushels of oats.

The following method is in general use: To treat 20 bushels of oats requires $\frac{1}{4}$ pint of Formaldehyde diluted with 5 gallons of water. Spread the oats on a floor and sprinkle with the diluted solution. Then turn them twice with a scoop shovel. Allow to stand for 12 hours. Then spread to dry. Any quantity can be treated by using the same proportions. Oats thus treated will be entirely free from smut.

Prices, Pint, 40c; Gallon Jug, \$2.75; Exp. or Frt., at purchaser's expense; cannot be mailed.

 OATS ARE A PROFITABLE CROP, easily grown and seldom fail. Prices are high and indications are that they will remain high for some time. Their value as a food makes them in big demand and our "Shadeland" seed will yield you a profitable crop.

GRAIN AND FIELD SEEDS—Continued

SEED WHEAT

WHEN ready to buy any variety of Seed Wheat, write us for quotations on quantity wanted or send in your order and we will give full value at lowest market price. The following are standard market varieties that are known as the most profitable and best yielding:

SPRING WHEATS

MARQUIS.—Marquis Wheat was produced by a cross of Red Fife and Hard Calcutta after a number of experiments extending over a period of nearly twenty years. It differs from the parent stock, Red Fife, inasmuch as it has a heavier head, shorter straw, and the grain is a little darker, more flinty and very heavy, weighing about 65 pounds to the measured bushel. Heads are beardless, chaff smooth.

Marquis was awarded the \$1,000 prize at the New York Agricultural Show, as the best wheat grown on the continents of North or South America; won the \$3,000 prize at the International Dry Farming Congress at Lethbridge, and Sweepstakes at Tulsa, Oklahoma, Dry Farming Congress. It is the earliest, heaviest yielding hard Spring Wheat, of splendid milling and baking quality, a hardy and vigorous grower. Try It.

PRICES: lb., 15c, postpaid; 100 lbs., \$3.50.

BLUE STEM.—The best known and one of the most profitable Spring varieties for the Northwest. Heads are large and well-filled, stools freely. Grain very hard. Although a Spring variety, can be planted as a Fall Wheat in sections where Winters are mild. The Blue Stem of the Pacific Coast has a white grain and smooth chaff, quite unlike the Velvet Chaff and Red grains of the states East of the Rockies. Better results are had with this Wheat East of the Cascade Mountains, as it has a tendency to lodge in the moist sections on the Coast.

Price, lb., 15c, postpaid; 100 lbs., \$3.25

LITTLE CLUB.—This well known variety has stiff, strong, typical club head and does not shatter easily. Has been used as one of the parents of a number of the new Hybrid Wheats. Is a good grower and yields well.

Price, lb., 15c, postpaid; 100 lbs., \$3.25

RED CHAFF.—This important variety may be grown either as a Winter or a Spring grain. Is of good quality grading close to Blue Stem as a milling variety.

Price, lb., 15c, postpaid; 100 lbs., \$3.25

WINTER WHEATS

FRONT FOLD.—Forty Fold is referred to as "Gold Coin" in some sections. Is quite early, seed resembling Blue Stem. A Favorite Winter variety in many localities, and in good demand for milling.

Price, lb., 15c, postpaid; 100 lbs., \$3.25

RED RUSSIAN.—This is extensively grown in the Palouse country of Eastern Washington, where conditions are favorable. It grows vigorously, maturing late, and gives a heavy yield of both grain and foliage. It is a superior variety for choking out weeds, growing close and luxuriantly.

Price, lb., 15c, postpaid; 100 lbs., \$3.25

TURKEY RED.—A medium hard Red bearded variety; a heavy yielder and does not shatter out easily. Is very hardy, doing well in cold climates, but in moist sections has a tendency to lodge badly. The grain is hard and of good quality. A good Wheat for the dry sections East of the Cascades. **Price, lb., 15c, postpaid; 100 lbs., \$3.25**

JONES WINTER FIFE.—Jones Fife is grown extensively in the Northwest, being hardy and drought resistant, and is considered the most valuable Winter Wheat for the dry sections of Eastern Washington and Oregon. A heavy yielder and good grower, in good demand for milling.

Price, lb., 15c, postpaid; 100 lbs., \$3.25

AULEATA.—**Italian Wheat.**—A fine, large hard winter wheat from Toscana, Italy. Said by the Italians to be ideal for making their delicious Italian bread. Also a superior macaroni wheat. Gluten content about 7.59%. Has given heaviest yield in Willamette Valley from February planting. This wheat should prove valuable variety for the northwest.

Price, lb., 15c, postpaid; 100 lbs., \$3.50

PRICES SUBJECT TO MARKET CHANGES

Write for Quotations





The Clipper Grain and Seed Cleaner

Recommended and used by all State Agricultural Colleges and by the U. S. Department of Agriculture

No work done on the farm brings such large returns as thoroughly preparing the grain and seed by re-cleaning and grading for planting. This insures an even stand of strong, healthy plants, and a larger yield of a higher grade. The "Clipper" cleaner is especially adapted to this kind of work on account of its ability to separate the small, also the light, dead seed or grain from the perfect seed or grain.

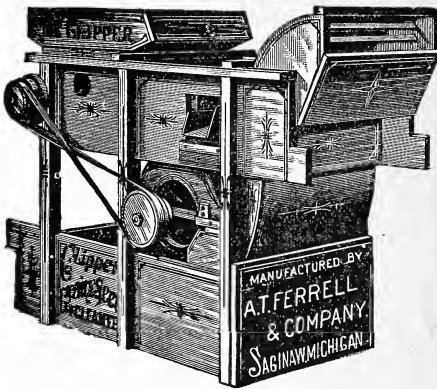
Other mills depend entirely upon screens for this work, and with unsatisfactory results. The "Clipper" screens all straw and foreign matter from the grain before it enters the air shaft, and the "Vertical Blast" does the rest.

Screens are so arranged as to be in plain view and of easy access to the operator while machine is in operation, and a set of 10 go with each mill. These are ample for general work—but special screens can be furnished for any cleaning operation.

The "Clipper" is a first-class, inexpensive and durable mill for general use.

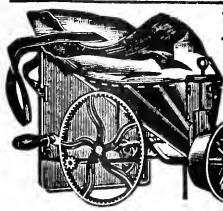
PRICES: **No. 1B.**—Capacity 40 bu. wheat or 12 bu. of clover per hour. Wt. packed, 200 lbs.... \$29.00

No. 2B.—Capacity 20 bu. clover seed per hour. Wt., packed. 250 lbs..... \$38.50



Guaranteed to do the most perfect work of any Hand Seed Cleaner manufactured.

We have supplied "Clipper Cleaners" to the mills, dealers and prominent growers of the North-west. If you grow grain or seed and do not own a "Clipper," you are losing many times its cost every year. Let us send you **The "Clipper" Catalog** of hand and power Cleaners. All sizes and prices.



Broadcast Seed Sowers

Little Giant

The best cheap seeder on the market, weight 4 lbs..... \$2.00

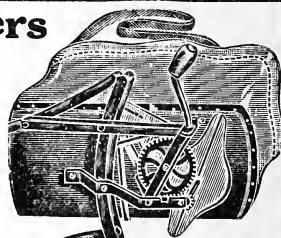
Tin Horn Seeder

Adjustable. A good serviceable seeder at a very low price. Weight 1 lb. Each, 90c

CAHOON

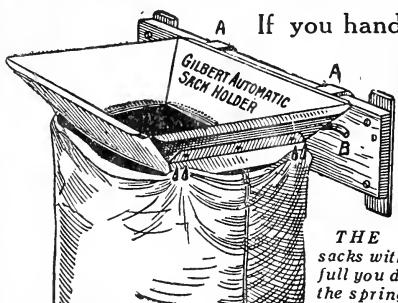
Cahoon

The standard broadcast seed sower of the world, made of steel, iron and brass and with ordinary care will last a lifetime. This is the most popular and best built seed sower; has a force feed and does excellent work. Instructions with each machine. Weight 9 lbs. Price, \$3.50



LITTLE GIANT

Gilbert Automatic Sack Holder

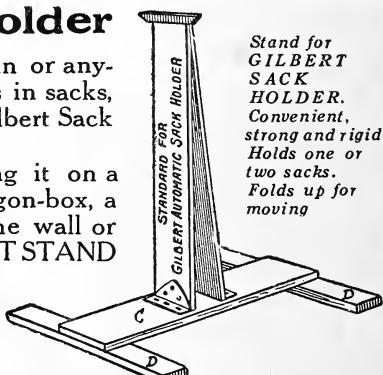


If you handle potatoes, grain or anything that goes in sacks, you need a Gilbert Sack Holder.

YOU can hang it on a fence, a wagon-box, a grain bin, on the wall or use the GILBERT STAND

THE GILBERT holds the sacks without tearing, and when full you do not have to lift them, the spring latch will drop them.

PRICES: **GILBERT SACK HOLDER,** Each.... \$2.50
Stand for same..... \$1.50



Stand for
GILBERT
SACK
HOLDER.
Convenient,
strong and rigid.
Holds one or
two sacks.
Folds up for
moving

English and German Names of Grains and Field Seeds

ENGLISH

Wheat
Oats
Rye
Barley
Buckwheat
Emmer
Cheat
Flax
Lentils
Vetch, or Tares

GERMAN

Weizen
Hafer
Roggen
Gerste
Buckweizen
Emmer
Cheat
Flachs
Linse
Wicke

ENGLISH

Red Clover
White Clover
Alfalfa
Timothy
Orchard Grass
Red Top Grass
English Rye Grass
Italian Rye Grass
Millet
Blue Grass

GERMAN

Rother Klee
Weisz Klee
Lucerne
Timotheus
Brautgras
Weisen fuchs schwanz
Englischen Raygras
Italienisches Ray Gras
Hirse
Blaugras

Foreign Names of Vegetables, Grains and Fruits

This List includes only those varieties that are in general cultivation.

ENGLISH	FRENCH	GERMAN	ITALIAN
Artichoke	Artichaud	Artischoke	Carciofo
Asparagus	Asperge	Spargel	Asparago or Sparaglio
Beans, dwarf	Haricot, Nain	Bohnen	Fagiulo
Beans, pole	Haricot a'Rames	Stangen Bohnen	Frihol
Beet	Betterave or Bette Rouge	Rothe Ruebe	Barbabietola
Borecole or Kale; see Kale			
Broccoli	Brocoli	Spargelkohl	Broccolo
Brussels Sprouts	Chou Verts	Rosenkohl	Cavolo di Bruxelles
Cabbage	Chou Pomme	Kopf Kohl or Kraut	Cavolo
Cabbage Savoy	Chou de Milan	Wirsing	Cavolo Cappacio
Cauliflower	Chou-fleur	Blumenkohl	Cavolfiore
Carrot	Carotte	Gebe Rübe or Mohre	Carota
Celery	Celeri Mavet	Sellerie	Sedano or Appio
Celeriac	Celeri-rave	Knoll-Sellerie	Appio Marone
Chervil	Cerfeuil	Kerbel	Cerfolgio
Chicory	Chicorice Sauvage	Gemeine Cichorie	Cicoria
Corn, Maize	Mais	Mais	Mais
Corn Salad	Mache	Feldsalat	Valeriana Domestica
Collards	Chow Coba	Blatterkohl	
Cress, Curled	Cresson Alenois	Garden-Kresse	Crescione
Cress, Water	Cresson de Fontaine	Brünnenkresse	Crescione di Sorgente
Cucumber	Conconbre	Garke	Citriuolo
Egg Plant	Aubergine or Melongerce	Eierpflanze	Melananza
Endive, Curled	Chicoree	Endivie	Indivia
Endive, Batavian	Escarolle	Blat-endive	Escarolle
Garlic	Ail	Knoblauch	Aglio
Horseradish	Raifort	Meerrettig	Ramolaceio
Kale	Chou Frise	Blätter or Grünen Kohl	Cavolo Riccio
Koh Rabi	Chou-rave	Kohl Rabi	Cavolo Rapi
Leek	Poireau	Gemeiner Lauch	Porro
Lettuce	Laitue	Lattich or Garten-salat	Lattuga
Melon, Musk	Melon Musque	Zucker-Melone	Mellone or Popone
Melon, Water	Melon d'eau	Wasser-melone	Cocomero or Anguria
Mushroom	Champignon	Essbare Blatter-schwamme	Pratajulo bianco, Fungo
Mustard	Moutarde	Senf	Senapa or Mortarda
Okra or Gumbo	Gombaud	Okra	Ocra
Onion	Oignon	Zwiebel	Cipolla
Oyster Plant; see Salsify			
Parsley	Persil	Petersille	Petrosemolo
Parsnip	Panais	Pastinake	Pastinaca
Pea	Pois	Erbse	Pisello
Pepper	Poivre	Pfeffer	Pepe
Potato	Pomme de Terre	Kartoffle	Patata
Pumpkin	Citronille or Potiron	Melonen Kürbis	Zucca
Radish	Rave	Rettig	Ravanello or Radis
Rape	Navette	Repskohl	Rapa Selvatica
Rhubarb	Rhubarbe	Rhabarber	Rabarbaro
Salsify or Oyster Plant	Salsifis	Haferwurzel or Bocksbart	Sassifica
Spinach	Epinards	Spinat	Spinacio
Squash	Courge	Speisie Kürbiss	Zucca
Tomato	Tomate	Liebesapfel	Pomidoro
Turnip	Navet	Rübe	Rapa or Navone

FRUITS

Almond	Amande	Mandel	Mandoria
Apple	Pomme	Apfel	Mela or Pomo
Apricot	Abricot	Apricose	Albicocca
Cherry	Cerise	Kirsche	Ciriegia
Currant	Groseille	Johannissebree	Ribes
Fig	Figue	Fege	Fico
Filbert	Noisette	Nussbaum	Avellana or Noccinola
Gooseberry	Groseillier a Maquereau	Stachelbeere	Uva-Spina
Grape	Vigne	Traube	Uva
Lemon	Limon	Limonie	Limone
Mulberry	Mure	Maulbeere	Mora
Nectarine	Brugnon	Nectarpfirsich	Pesche Noci or Nettarine
Olive	Olivie	Oelbaum or Olive	Uliva
Orange	Orange	Pomeranze	Aranzia
Peach	Peché	Pfirsiche	Pesca
Pear	Poire	Birne	Pera
Plum and Prune	Prune	Pflaume	Susina or Prugna
Pomegranate	Grenade	Granatenbaum	Melagrana
Quince	Coing	Quilte	Melacatogna
Strawberry	Fraise	Erdbeere	Fragola
Blackberry	Murier de Renard	Brombeere	Moro di Rovo
Raspberry	Framboise	Himbeere	Lampone

Diamond Fertilizers

The Base is Bone Meal and Tankage—No Cheap Filler. Every Pound is Good Fertilizer.



DIAMOND QUALITY Fertilizers are complete fertilizers of the highest grade and concentration, no inferior ingredients or cheap fillers are used in their preparation. Bone Meal and Tankage forming the base to which is added the necessary Potash, Nitrogen and Phosphoric Acid. Each package is marked plainly, showing the percentage of available plant food.

SPECIAL FERTILIZER BOOKLET giving complete details and prices of the different fertilizers which we can supply, together with full information for their application, will be sent on request. This booklet is instructive, reliable and of great value to all interested in fertilizers.

Applied in quantities of 1,000 lbs. to a ton per acre, our fertilizers, with intelligent culture will sustain and gradually improve the soil and increase the yield and quality of the product, even though the crop be entirely removed and no other manuring done. The roots, vines, stubble and whatever of weeds or waste there is, all assist in providing the necessary humus. A greater amount is often used to advantage by market gardeners. Complete instructions will be found in our Fertilizer Booklet, sent free. If there is any special information you require, write us; your inquiries will have our prompt and careful attention and our experience may help you.

Being the largest dealers, we carry the most complete stock of fertilizers and fertilizing materials in the Northwest, and having installed modern machinery for regrinding and mixing our "Diamond Quality" Fertilizers, we can make immediate delivery in any quantity, ground to a fineness and blended to a mechanical perfection that make them of superior excellence. Fertilizers that are machine mixed and fined are more thoroughly and evenly blended, are more readily available and give uniformly better results than when mixed by hand.

General and Vegetable Fertilizer

An all-round fertilizer, which can be used on any crop, but is especially adapted for grain and general farm crops. Analysis: Nitrogen, 2 per cent; phosphoric acid, 7.25 per cent; potash, .60 per cent.

10 lbs., 40c; 100 lbs., \$2.30; per ton, \$43.00

Fruit and Onion Fertilizer

This fertilizer is also used for blackberries, raspberries, etc. We sell large quantities for growing the famous Hood River strawberries. Analysis: Nitrogen, 2 1/2 per cent; phosphoric acid, 10 per cent; potash, .60 per cent.

10 lbs., 40c; 100 lbs., \$2.40; per ton, \$46.00

Odorless Lawn and Rose Fertilizer

Our Diamond Lawn Fertilizer promotes a vigorous, healthy growth, giving the desired dark rich green appearance; can be used at the time the seed is planted and later as a top dressing. One hundred pounds is sufficient for an ordinary city lot, and is far more effective and less objectionable than stable manure. Remember, it contains no weed seeds. When used as a top dressing it is best to make several light applications about two weeks apart.

**10 lbs., 50c; 25 lbs., 75c; 50-lb. sack, \$1.25;
100 lbs., \$2.35; per ton, \$45.00**

Sheep Guano

The best natural manure, dried and ground. Concentrated, soluble; quick in action, and free from weed seed. Splendid for vegetables; fine for roses and flowers. Excellent for lawns.

10 lbs., 40c; 25 lbs., 60c; 50 lbs., \$1.00; 100 lbs., \$1.75; per ton, \$33.00.

Nitrate of Soda

For immediate results Nitrate of Soda is the very best for stimulating and forcing the growth of plants or any other crop.

Market unsettled—Prices on request.

A 100-pound Bag of High Grade Commercial Fertilizer will contain more soluble and available plant food than 4,000 pounds (two tons) of stable manure of average quality. How much easier and cleaner to handle one 100-pound bag than 2 tons of manure, and there are no weed seeds to worry over.

NOTE—AS FERTILIZERS ARE SOLD ON A SMALL MARGIN, PRICES ARE SUBJECT TO MARKET CHANGES but you will always get FULL VALUE for your money.

Land Plaster, or Gypsum

Made from pure gypsum, free from clay or other foreign matter. This is especially valuable for clover crops.

10 lbs., 25c; 100-lb. sack, 90c; per ton, \$11.00

Lime Rock—Fine Ground

This is the form of lime recommended by the Agricultural Dept. Use 1/2 to 1 ton per acre.

100 lbs., \$1.00; per ton, \$11.50

Superphosphate

This is a concentrated form of phosphoric acid, and it is actually the cheapest form in which to buy phosphoric acid. Our present stock contains 17 to 18 per cent available phosphoric acid.

Per lb., 5c; 100 lbs., \$1.40; per ton, \$26.00

Bone Meal

Fine ground, is one of the best fertilizers. This is the only grade of Bone Meal, and is reduced by improved machinery to an even fineness—nothing is added. This is a very valuable enricher of the soil, and one of the most economical at present prices. **5 lbs., 25c; 10 lbs., 40c; 100 lbs., \$2.50; per ton, \$46.00.**

Blood Meal

Blood cooked, dried and finely ground, a quick-acting fertilizer, analyzing very rich in effective nitrogen; in fact, the nitrogen of Dried Blood is one of the most effective forms of organic nitrogen known. This also carries some phosphorus; is a strong fertilizer, a little going a long way.

5 lbs., 30c; 10 lbs., 50c; 100-lb. sack, \$3.85

Tankage

Ground meat scraps and bone, dessicated in a vacuum, is very rich in phosphoric acid and nitrogen.

Per 100-lb. sack, \$2.10; per ton, \$29.00

Fish Guano

Fish cooked, dried and ground is a strong fertilizer, rich in nitrogen, carrying considerable phosphorus and used largely by vegetable growers. We do not recommend this for lawns or city use, as odor is objectionable.

100 lbs., \$2.75; per ton, \$50.00

FERTILIZERS—Continued

DIAMOND PLANT FOOD

For Ferns, Palms and House Plants. Clean, Odorless, Highly Concentrated

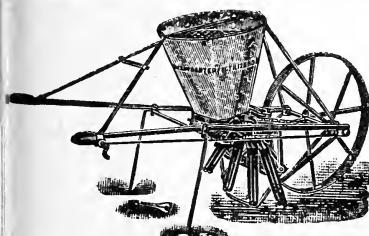
A complete, highly concentrated, powerful fertilizer, clean and odorless, wonderfully invigorating to all plants; producing luxuriant foliage and larger and more brilliant flowers. A 25c package will feed a dozen large plants a whole year. Special instructions on each package.

Price: $\frac{1}{2}$ lb. pkg., 15c; by Mail, 25c; 1 lb. pkg., 25c; by Mail, 40c



Our fertilizers contain generous supplies of vital plant food. Being highly concentrated and readily available, small quantities only are needed for the production of the finest crops. **THEY ARE QUICK IN ACTION, RELIABLE AND ECONOMICAL.**

FARMOGERM is a practical success. A \$1.50 package used on a leguminous crop will produce as much nitrogen as 8 tons of manure. **See Page 47**



McWHORTER'S FERTILIZER DRILL

It will distribute the fertilizer in one or more furrows beside the growing crop or broadcast to any extent up to a uniform spread of over two feet, without removing or adding any part or loosening a bolt, and in any quantity from a few pounds up to forty or more pounds to the hundred yards of row, or from 200 pounds to over a ton to the acre. We call special attention to this ability to spread the fertilizer with this machine. It is a highly important feature and will be appreciated by the thinking farmer. A decidedly wrong thing is to apply the strong fertilizers of the present day without sufficiently spreading and incorporating them with the soil. **Shipping weight, 61 pounds.** **Price, complete, \$13.00**

McWhorter Fertilizer Drill No. 21

For the Practical, Superior Distribution of Commercial Fertilizers—Simple in Construction, Easily Understood and Effective in Operation.

This machine needs no defense or praise from us. Wherever known, it is pronounced the best. Has a force feed without friction; does not require that degree of dryness in the fertilizer necessary to all other distributors we have seen; is so arranged that the fertilizer can be applied in any manner that may be desired, as the operator has perfect control of the spread and division of same, any change for that purpose requiring only a few seconds.

It will distribute the fertilizer in one or more furrows beside the growing crop or broadcast to any extent up to a uniform spread of over two feet, without removing or adding any part or loosening a bolt, and in any quantity from a few pounds up to forty or more pounds to the hundred yards of row, or from 200 pounds to over a ton to the acre. We call special attention to this ability to spread the fertilizer with this machine. It is a highly important feature and will be appreciated by the thinking farmer. A decidedly wrong thing is to apply the strong fertilizers of the present day without sufficiently spreading and incorporating them with the soil. **Shipping weight, 61 pounds.** **Price, complete, \$13.00**

FERTILIZING ELEMENTS

Nitrogen

NITROGEN is necessary for the production of plant life, and without it there can be no plant growth; it is a powerful stimulant, and, when present in excess, causes a rapid and excessive, but watery and unnatural growth, which is made at the expense of fruitfulness. Too much nitrogen on wheat shows its ill-effects in such a rank growth of the plant, and later, of straw, as to be unable to sustain its own weight until the grain is matured; on hops, by great growth of plant and but few blossoms, which mature fewer burrs; on fruit trees by a rapid and sappy growth which produces little fruit.

Leguminous crops (such as clover, beans, peas, etc.) draw their supply of nitrogen principally from the air, and, therefore, an artificial application of nitrogen fertilizer to this class of plants is rarely needed.

Phosphoric Acid

PHOSPHORIC ACID is necessary for the healthy growth of plants, and is essential to the best production of straw and seed. Its deficiency in a soil is shown by the want of vigor in its plant life. To produce its full effect, however, it must be used on a soil already rich in nitrogen, or be associated with nitrogen in the fertilizer; otherwise it will produce a tall, pale and spindling growth of straw with very small increase of grain or fruit. **It has a marked effect in hastening maturity and should be used freely on all crops which should be ripened early and is especially useful for increasing all crops of seed grain.**

ACID PHOSPHATE contains large quantities of lime, which is valuable on such soils as would be improved by the use of land plaster, while bone also contains nitrogen, which gives it an additional value.

Potash

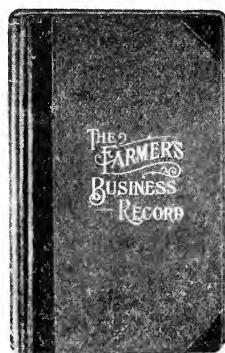
POTASH is found in all plants, in greater or less quantity, in all soils. It is essential to the development and growth of the plant. In combination with Nitrogen and Phosphoric Acid, Potash contributes to the full and perfect development of plants. Excess of Potash does not show any special effect in the plant, but a weakened growth, a lack of fruitfulness, and especially a slow and unsatisfactory development of starch and woody fiber, follows its deficiency in the soil.

Our Free Booklet, "Fertilizers" is of Great Interest to All Growers.



BOOKS

Books are the inspiration, the authoritative guide, that enable you to command success, and you should have the standard references on the subjects in which you are interested.



FARMER'S BUSINESS RECORD

A simple complete system of business accounting in one convenient book.

Arranged by special rulings and headings so that only the figures need be recorded. Gives a complete record of every transaction. Requires no knowledge of bookkeeping—so simple that any one who can make figures and read can keep this perfect record and know to a cent how much the profit or loss is for the year, and can compare this year's records with last or any previous year or month. This wonderful book will hold your records for twenty years; also contains a fund of priceless information, valuable tables, weights and measures, formulas for stock remedies and foods, forms for contracts and business and legal agreements.

The most simple, complete, systematic method for placing yourself and farm on a business basis.

PRICE: The regular price of this valuable book is \$3.75. By special arrangement, we are able to introduce it to our customers for \$2.50 or \$2.75, postpaid, or will give this complete system as a premium with a \$25.00 order.

All books postpaid at following prices Binding Price

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A complete guide for amateur rose-growers, is the latest, most beautiful and complete work that the English have given us; 64 beautiful half-tone engravings, 8 pages of superb color plates; if you love roses, you should have this book.— An ideal gift book —278 pages, 5 1/2x8 1/4, \$2.10, postpaid.	
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TEN ACRES ENOUGH, 273 pages, 5x7 1/2 in.....C	1.10
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New A B C and X Y Z of Bee Culture

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By freight or express, deduct 15c from above prices.

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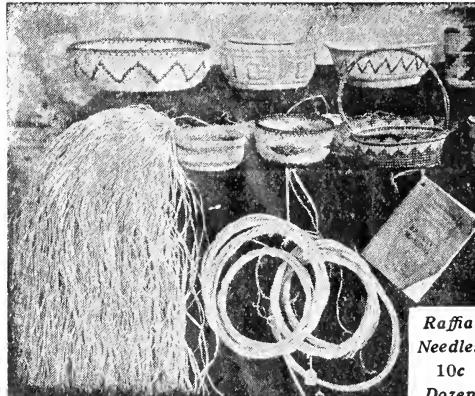
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AMERICAN STANDARD OF PER- FECTION, 331 pages, 5 1/2x8 in.....	C	\$2.00	Binding Price
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DAIRY CHEMISTRY, Snyder, 190 pages, 5x7 1/2.....	C	1.25	
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FARM AND DAIRY, Sheldon, 158 pages, 5x7 1/2.....	C	1.10	
FARM STOCK, Burkett, 358 pages, 5x8 in.....	C	1.60	

For complete information about Books listed—Write us.



Raffia
Needles
10c
Dozen

RAFFIA

FOR BASKET MAKING

Raffia weaving has become very popular. Baskets, jewel boxes, shopping bags, mats, cushions, slippers and hats are but a part of the many useful articles woven.

In ordering raffia by mail, be sure to add postage.

RAFFIA.—Natural color. **PRICE:** **1/4 lb., 10c; post-
paid, 15c; per lb., 30c.**

COLORED RAFFIA.—Any shade, the popular
colors being red, green, yellow, orange, brown,
black, blue and purple. **Per pkg., 15c; per lb.,
\$1.00.**

**SAMPLES showing colors of Raffia sent
for 2c to cover postage.**

BASKET MAKING Tells how to use Raffia
and Reeds. **25c postp'd**

REEDS—For Weaving and Baskets

REEDS are used in the weaving of Baskets, covering Flower Bowls, Vases, etc., and are also useful as a foundation for raffia work baskets and handles.

We have been fortunate in securing a fine stock and offer the five most useful sizes.

Schools and Teachers write for Special Prices on Reeds and Raffia.

	Pkg. 1/4 lb. lb
No. 1	.15 .50 \$1.40
No. 2	.15 .45 1.30
No. 3	.15 .45 1.25
No. 4	.10 .35 1.00
No. 5	.10 .35 .95

Get a "FARMER'S BUSINESS RECORD." See Page 62.



“DIAMOND QUALITY” FLOWER SEEDS



FLOWERING plants are enjoyed by everyone, and cut flowers for home use or flowering plants for garden display can easily be grown; their care is a pleasant and healthful diversion, and for the small expense of time and money nothing will return so much pleasure and profit. If you have any planting problems, if you wish to produce special effects or work out color schemes, write us: we will be glad to assist you in every way possible, and our experience is at your service.

CULTURE.—Cultural directions are printed on the back of nearly all packets. Flowers usually succeed best in a sandy loam, made rich with well-rotted manure, which should be made fine and thoroughly mixed with the soil. A soil thus prepared will remain moist and loose, so that flower seeds, which are generally small and delicate, will germinate and grow with vigor.

After the plants are up they require plenty of air and moisture, but they must not be too wet or they will “damp off.” When large enough to transplant, put them in boxes or pots, giving them plenty of room, then when the ground is warm enough to put them outside, each plant will have a nice clump of roots. But if they are left in the seed bed and are close together, they will be weak and will not thrive.

A common mistake with flower, as well as other seeds, is planting too deep. A good rule is to plant the same depth as the thickness of the seed, and always press the soil down firmly, as this helps the seed to secure a firm hold and also retains the moisture.

A hotbed or cold frame is very convenient to start seeds in, as the temperature and moisture can be so regulated as to make their germination and rapid growth more certain. Most seeds do well if sown in boxes in a sunny window in the house.

Plants are usually ready to be transplanted when they have made a growth of two inches.

INFORMATION THAT WILL AID IN SELECTION OF FLOWERS.

Annuals bloom and ripen the first year and then they perish. Many annuals in warm climates, or when taken in, or protected during Winter, become perennial, with short lives.

Hardy Annuals, Biennials and Perennials can be sown in the open ground early in the Spring if desired, and Hardy Biennials and Perennials do not require any protection in Winter.

Perennials flower several years in succession.

Biennials do not generally flower the first year, and are in their perfection the second year.

Half-Hardy Annuals, Biennials and Perennials should not be sown in open ground until settled warm weather, though they can be sown in the house, if desired, early, and afterwards transplanted. The two latter need to be protected in Winter, or carried over until Spring in cold frames or greenhouses.

For the convenience of our customers we have grouped annuals together—separating them from the Biennials and Perennials, and have arranged a classified list giving color and habit of flowers and plants to aid in selections for special effects. See Page 83.

“Diamond Quality” SWEET PEAS

Sweet Peas Head the list as our most beautiful and popular annual

OUR Famous “Diamond Quality” Sweet Peas are selected with critical care and we offer the best productions of the foremost growers, including the latest, most valuable novelties. We conduct careful trials, and, for quality and assortment of varieties, our stocks are unsurpassed. Although we list only those we consider best, we can supply any variety in commerce, and special orders will receive careful attention.

CULTURE.—First and most important, plant as early in the Spring as the conditions will permit. If the ground is well drained earlier flowers can be had from Fall plantings. The ideal soil is cool, moist, and well drained, and should be dug up the previous Fall, manure well worked in, and left to lie in the rough through the winter. In the early Spring work this down enough to plant, which can be done before conditions will permit working of ground that has not been previously prepared. This gives an earlier and better start than if you wait until Spring to work your soil, but the late Spring plantings will often give very satisfactory results in some sections.

Seeds should be sown at the rate of one ounce to fifteen feet. Make a trench about three to four inches deep, planting the seeds in the bottom about two inches deep, pressing the soil down firmly. After the plants are well up, thin to four or five inches apart, and draw the soil around them until the trench is filled above the level. This gives a depth to the roots, preserving the moisture. Keep the ground well worked and water if needed, an occasional thorough soaking being better than a daily sprinkling. Keep the flowers cut close and a pruning of the tips of the vines will also aid in prolonging the season of bloom and insuring better flowers.

FARMOGERM FOR SWEET PEAS—Makes earlier, better flowers. See page 47.

SWEET PEAS Continued

New—EARLY FLOWERING



Early Spring Maid

“Wonderful Success”

Sept. 26, 1916.

Dear Sirs: Glad to say have had wonderful success with my Sweet Peas from your seed. Over four months of continuous blooming and excellent size and color, too.

Athena M. Edwards.

JOIN THE OREGON SWEET PEA SOCIETY.

Cup—value \$60.00—for the best eight Spencer varieties in vases of ten or more stems each. Only amateurs who are members can compete, so every member has a chance to win. The Society's Exhibitions are one of the big annual events in Portland, and every lover of Sweet Peas should be a member. Your inquiries addressed to us will be promptly referred to the secretary.

Fifty cents will pay all dues for one year. Send us your application.

Plant Our 1917 Collection of Oregon Grown Sweet Peas—Page 67

**Long - Season Spencer
SWEET PEAS**

A Cross of Early *GRANDIFLORA* and *SPENCERS*—of fixed color and type

SIX WEEKS EARLIER than the Spencers, these new early-flowering varieties begin to bloom 106 days from planting in the open ground and flower through a long season—about 4 months.

New Early-Flowering Spencers are said by the originator to be perfectly fixed as to type and color and should not be confused with the Christmas or Winter-Flowering varieties generally listed. We give originator's descriptions of the 5 varieties we offer:

Early Morning Star

The most distinct and beautiful of its color and class—a deep orange scarlet or flame color standard, with orange pink wings—having about the same shades and brilliancy as “Thomas Stevenson;” is resistant to sunburn and the magnificent flowers are borne 3 and 4 on a stem in the greatest profusion. A profitable florists variety; is especially attractive under artificial light. **Pkts. only—Each 25c**

Early Melody

A lovely rose pink on white having the dainty coloring and general appearance of “Countess Spencer,” very floriferous, the blooms being mostly fours on fine stems. **Pkts. only—Each 25c**

Early Spring Maid

Color a light pink on a cream ground; a flower of great beauty and refinement; the large blossoms 4 on a stem, make this a most attractive and desirable variety. **Pkts. only—Each 25c**

Early Snow Flake

The best of the “Early White Seeded Spencers”—a beautiful white for commercial growers. The flowers are very large, beautifully waved and borne in greatest profusion on long stems. **Pkts. only—Each 25c**

Early Heather Bell

Very large graceful flower of finest Spencer form, borne 3 and 4 on long, strong stems. Color is a lovely, rich mauve—changing when cut to a beautiful mauve lavender. Valuable as a cut flower and profitable variety for florists. **Pkts. only—Each 25c**

You may win our beautiful Solid Silver Trophy

1917 DIAMOND COLLECTION OF OREGON GROWN SWEET PEAS

PRICE: Eight packets—One each. 65c

FLORENCE NIGHTINGALE--Spencer.—Finest new lavender of immense size. Bold, erect flowers of charmingly soft, rich lavender with very delicate suffusion of rose; a beautiful, self-colored flower, frilled and waved. Bears four blooms on extra long stems. **Pkt., 10c; oz., 35c**

"MARGARET ATLEE".—The most perfect of the Duplex type yet produced. Color is a warm salmon pink suffused over a cream ground. The cream deepens into a bright buff at base of standard and wings. Flowers are of very large size and are borne almost uniformly four on a stem. Certificate of merit. **Pkt., 10c; oz., 35c**

KING WHITE.—The newest and most magnificent white; of perfect Spencer type; the immense petals gracefully frilled—are a pure white of wonderful substance. **King White** has the most enthusiastic endorsement ever accorded a sweet pea. **Pkt., 10c; oz., 35c**

ROYAL PURPLE.—A rare new shade in Sweet Peas, a rich purple, almost a true royal, a color that does not exist in the Grandiflora type. **Pkt., 10c**

WEDGEWOOD.—A true self—being a beautiful Wedgewood blue; entirely free from the purple shading found in other blue Spencers. **Wedgewood** is also larger, grows more vigorously, and blooms more freely than other blues. Certificate of merit. **Pkt., 10c**

THOMAS STEVENSON.—The most brilliant orange scarlet, standard of deeper color than the wings. The flowers are of the finest Spencer form and generally come four to the stem. **Pkt., 10c; oz., 65c**

VERMILION BRILLIANT.—An intense pure scarlet self-color of rare beauty and substance. Absolutely sunproof. **Vermilion Brilliant** is the finest flower of its color. A stocky, vigorous grower, profuse bloomer, the long, strong stems carry four perfect flowers. **Pkt., 10c; oz., 65c**

ORCHID.—Extra large flowers borne 3 and 4 on long, strong stems; color a true deep Orchid lavender, a new color in sweet peas—Orchid is vigorous free blooming and was awarded a certificate of merit. **Pkt., 10c**

New Spencers

A Splendid Collection, including the Best of the Recent Novelties

THE new "Spencer" type has lovely waved and fluted flowers of gigantic size, and in exquisite colorings, length of stem, and lasting qualities are much superior to the older types. "Spencers," however, are very shy seeders and require much careful selection to develop fixed types. The seed is therefore scarce, and cannot be cheaply produced.

ILLUMINATOR.—A brilliant orange-salmon ground, illuminated with bright cerise pink; a rare and wonderful color combination of great beauty. First class certificate. **Pkt., 10c**

AMERICA--Spencer.—The largest and finest of its class. Pure satiny white, striped and splashed brilliant crimson; 4 flowers of perfect form borne on long stems. **Pkt., 10c; oz., 35c**

APPLE BLOSSOM SPENCER.—A truly giant flower; color standard rose with deeper veining, wings light carmine, ground color primrose. **Pkt., 10c; oz., 35c**

ASTA OHN.—Lavender, suffused with mauve; of perfect form, largest size, 4 blossoms on long, strong stems; very vigorous. **Pkt., 10c; oz., 35c**

CONSTANCE OLIVER.—A clear, rich pink on cream ground; of true Spencer type; best of its color. **Pkt., 10c; oz., 35c**

COUNTESS SPENCER--Pink.—The first Sweet Pea of the Spencer type. Flowers extremely large, beautifully expanded, crumpled and waved. Color silvery white, suffused and tinted with soft shell pink, deeper at the outer edges. **Pkt., 10c; oz., 35c**

DAINTY--Spencer.—A pure, glistening white with distinct margining of bright rose pink; comes four blossoms on long stems. Dainty is all its name implies and is the best picotee edge yet produced; very large and wavy. **Pkt., 10c; oz., 35c**

CAPTAIN OF BLUES SPENCER.—A Spencer type of the **Captain of Blues Grandiflora**. Standard of flowers bright violet-purple, wings lavender blue. **Pkt., 10c; oz., 35c**

FLORA NORTON.—Bright blue with just a tinge of purple, fine Spencer form. **Pkt., 10c; oz., 35c**

ELFRIDA PEARSON.—Pale pink on white ground, a rare beauty; vigorous and very free blooming; classed as the best pink Spencer by National Sweet Pea Society of England. **Pkt., 10c; oz., 35c**

"DUPLEX CREAM".—The standards are large, bold and beautifully curved. A vigorous grower and produces many fours. Color a deep rich cream. **Pkt., 10c; oz., 35c**

GEO. HERBERT.—Our own select strain; a bright rosy-carmine, open form, beautifully waved; a magnificent, vigorous Sweet Pea of giant size. **Pkt., 10c; oz., 35c**

HELEN LEWIS.—A giant flower of perfect form; standard rich crimson orange, wings orange rose; open form, full, wavy. **Pkt., 10c; oz., 35c**

KING EDWARD SPENCER.—Bright crimson scarlet, largest size, wavy standard; drooping wings, very long stems; one of the finest bright reds. **Pkt., 10c; oz., 35c**

MARJORIE WILLIS.—A brilliant rose carmine of the Marie Corelli class and considered a better flower, of the finest Spencer form, the long stems carry four well-placed flowers; one of the best. **Pkt., 10c; oz., 35c**

MAUDE HOLMES--Spencer.—A brilliant sunproof crimson of the largest size. Of true Spencer form, wavy and fluted. **Pkt., 10c; oz., 35c**

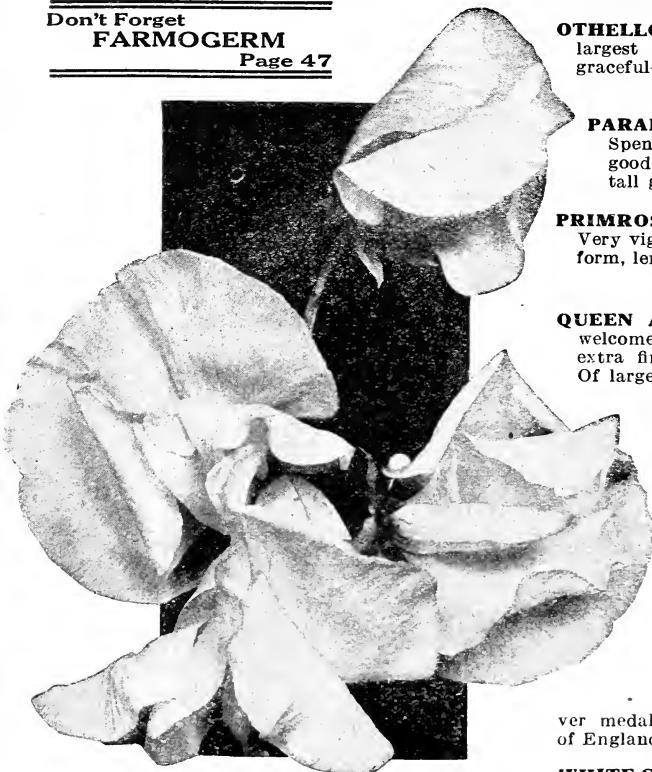
MRS. ROUTZAHN.—Color, a soft straw tinted with blush pink, shading to apricot and rose at the edges, with a distinct rose margin; of immense size; one of the finest Spencers. **Pkt., 10c; oz., 35c**

MRS. WALTER WRIGHT.—A distinct bright shade of rosy mauve, extra large, fine flower, waved and ruffled, vigorous and free-flowering. **Pkt., 10c; oz., 35c**



SPENCER SWEET PEAS—Continued

Don't Forget
FARMOGERM
Page 47



*Duplex Type of Sweet Pea.
See "Margaret Atlee" and "Duplex"*

OTHELLO SPENCER.—Very deep maroon of largest Spencer type; wings very wavy, large graceful flower; best of its color.

Pkt., 10c; oz., 35c

PARADISE IVORY.—A grand ivory white Spencer of the finest form. Large flower of good substance on long stems. A vigorous, tall grower.

Pkt., 10c; oz., 35c

PRIMROSE SPENCER.—Color, a true primrose. Very vigorous, free-flowering, excels in beauty of form, length of stem and keeping qualities.

Pkt., 10c; oz., 35c

QUEEN ALEXANDRA—Spencer.—We will all welcome Queen Alexandra in Spencer form. An extra fine intense scarlet, sunproof Sweet Pea. Of large, full, waved form. Free-flowering and vigorous.

Pkt., 10c; oz., 35c

SENATOR — Spencer.—Of finest Spencer form and largest size. The coloring is a combination of deep claret and chocolate, striped and flaked on a light heliotrope ground. The coloring, though dark, is brilliant and attractive. A free-flowering, vigorous grower of greatest merit.

Pkt., 10c; oz., 35c

STIRLING STENT.—Color, a deep salmon suffused with orange. The flowers are of superb Spencer form, particularly effective by artificial light. First class certificate and silver medal from the National Sweet Pea Society of England.

Pkt., 10c; oz., 50c

WHITE SPENCER.—A pure white flower of enormous size, beautifully crinkled and fluted, of splendid substance

Pkt., 10c; oz., 50c

To produce a luxuriant dark green velvety lawn, sow DIAMOND FANCY MIXED LAWN GRASS and fertilize with DIAMOND LAWN and ROSE FERTILIZER

Sweet Peas in Mixture

Diamond Mixture

This is the most perfect blend of the finest named varieties it is possible to produce. As formerly, this mixture will contain the novelties of the preceding season, and the addition of the rare Spencer types will make this the grandest mixture of new, large-flowering Sweet Peas we have ever offered. It will delight the most critical; if you are undecided as to the varieties or colors you want, buy the "Diamond Mixture."

Sold in 1-oz. sealed pkts. only, at 15c each; 2 for 25c; 12 for \$1.25. Not sold in bulk.

Extra Mixed

Select standard varieties of the finest colors.

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 40c; $\frac{1}{2}$ lb., 60c; lb., \$1.00.

For Perennial Peas, See Perennial Flower Seeds.

Our Superb Mixture

True Spencers Only

A splendid mixture, carefully proportioned and blended to produce pleasing and harmonious combinations of color, containing the most beautiful shades and variations of the wonderful Spencer type.

These are not seedlings, but carefully selected named varieties that retain all their purity and brilliance of color.

Pkt., 10c; oz., 30c; $\frac{1}{4}$ lb., 85c; lb., \$2.50.

Special Mixtures to Order

If you want to produce any special effect or color scheme, let us know your requirements. We can supply the correct color or mixture.



For Perennial Peas, See Perennial Flower Seeds.

DIAMOND PLANT FOOD

For Ferns, Palms and House Plants. Clean, Odorless, Highly Concentrated Produces Luxuriant Foliage—Brilliant and Lasting Flowers. A 25-cent package will feed a dozen large house plants a whole year.

Price: $\frac{1}{2}$ -lb., Pkg., 15 cts. Postpaid 25 cts. 1-lb., Pkg., 25 cts. Postpaid 40 cts.

SWEET PEAS—Continued

“UNWINS”

Splendid New Sweet Peas in this Popular Class

THE “UNWINS” resemble the Spencer type, although being of entirely different origin. They are not quite so large as the Spencers, but of fine form and substance, very vigorous and free-flowering, and always come true. In this respect they are superior and more dependable than Spencers, which often “sport” in the most unaccountable manner. For substance, color and bloom, Unwins are unsurpassed.

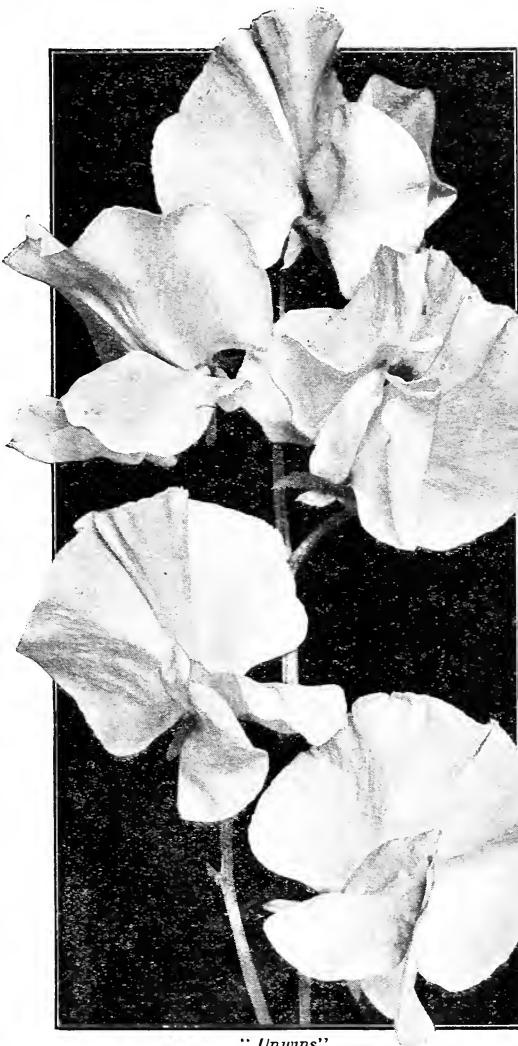
**PRICE, except where noted, Pkt., 5c;
oz., 25c.; $\frac{1}{4}$ lb., 75c.**

NORA UNWIN—White.—A grand pure white of the same beauty of form, waved and fluted standard and wings as Gladys Unwin. Award of merit at the trials of the N. S. P. S., Reading, England; one of the finest whites.

ST. GEORGE.—Brilliant orange standard, the large wings a distinct orange carmine; does not burn in the sun; one of the best orange shades.

FRANK DOLBY.—Color, delicate light lavender of great beauty, bold, wavy standard with widely spreading fluted wings.

GLADYS UNWIN—Light Pink.—A large, bold flower, not hooded, but with standard and broad wings of the new orchid-flower type, this is similar to Countess Spencer, but several shades lighter in its lovely pink color.



“Unwins”

GRANDIFLORA TYPE

Select List of Finest Large Flowering Sweet Peas, The Best of Their Color and Type

Prices, unless otherwise stated, 5c per pkt.;
15c per oz.; 40c per $\frac{1}{4}$ lb.; \$1.25
per lb., postpaid

Red, Scarlet and Maroon

QUEEN ALEXANDRA.—An intense bright scarlet of grand substance; a bold, robust flower of giant size and finest form, is sunproof, very vigorous and free-flowering.

KING EDWARD VII.—A lovely, intense crimson. A truly giant flowered variety. The finest crimson to date. Strong stems and growth.

PRINCE OF WALES.—Rose crimson. Fine sort.

BLACK KNIGHT.—Largelike; a rich, dark claret; almost black; somewhat veined.

Pink—Deep Shades

JANET SCOTT.—A large, grand flower; deep, rich pink.

Pink—Light Shades

DAINTY.—Large flowers, white with pink edge.

PRIMA DONNA.—A most beautiful bright shade of blush-pink. Flowers of a large size, and finest form.

Blue and White

HELEN PIERCE.—The most beautiful bright shade of true blue mottled on a brilliant pure white ground; 3 or 4 blossoms on a long stem. A grand flower of the largest size; very free and vigorous.

White

DOROTHY ECKFORD.—Pronounced by Sweet Pea experts to be the grandest pure white yet seen of the grandiflora type. Grows an enormous mass of bloom.

Cream or Light Yellow

MRS. COLLIER.—A true primrose of fine form.

Orange and Salmon

MISS WILLMOTT.—Described as an “orange pink” delicately shaded rose. Enormous flowers, borne erect on long, stiff stems.

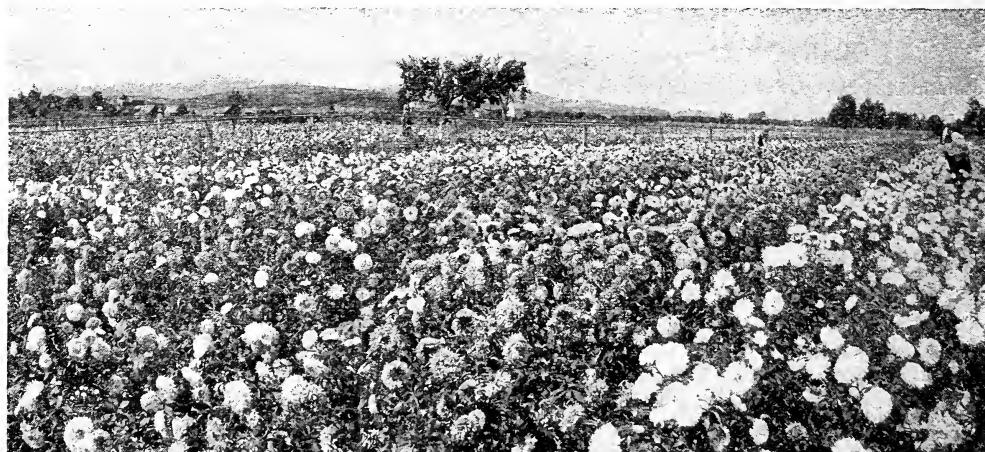
ROSE DU BARRI.—Deep carmine rose and orange. While of the grandiflora type, Rose Du Barri is large, full and slightly waved.

Lavender

LADY GRISEL HAMILTON.—Most attractive light lavender shading; flowers of large size.

Blue and Purple

LORD NELSON, or “BRILLIANT BLUE.”—A brilliant dark navy blue with tips of wings a lighter blue. Giant flowers, slightly hooded.



Oregon Aster Field — Where Some of Our Stocks Are Grown

ANNUAL FLOWER SEEDS

And Those Generally Used as Such

CHARMING effects for every planting purpose can be had at very little expense by the proper planting of Annual Flowers, Vines and Foliage Plants. For classified list showing what is best for various purposes, see page 83.

Annuals bloom the first year, and many of our most popular flowers come in this class—under favorable conditions a few varieties will continue to live longer than one season, but as a rule they perish, and in planting for permanent effects the perennial plants are generally selected, the annuals being used for the first one or two seasons until the perennials become established as all do not bloom the first year.

ASTERS—Oregon Grown Seed

ASTERS grow to perfection in our mild, cool climate and splendid strains of the best-known sorts have been developed by careful selection. As Fall bloomers for garden or cut flowers, asters are most satisfactory, and the varieties we offer being acclimated can be depended on for best results, rivaling the chrysanthemum in size and beauty. Asters require a rich, moist soil. Seed should be sown inside in March, and plants transplanted to the open ground when the weather is settled and warm. **Plants in season—see Plant Dept.**

"CREGO GIANT" ASTER.—The "Giant Crego" is distinct in every way, and its magnificent flowers, often 6 inches in diameter, are fully equal to chrysanthemums. They have rare beauty of form and brilliant coloring, are very vigorous, and free flowering; blooms are borne on long stems.

White, Shell Pink, Rose, Purple, Lavender.
Pkt., 15c; $\frac{1}{8}$ oz., \$1.00

PACIFIC BEAUTY.—A rich true lavender, with big fluffy blooms on strong stems; free bloomer and great keeping qualities; originated in Oregon. New.
Pkt., 25c

GIANT CRIMSON.—A new velvety crimson of branching habit, upright grower. Excellent for garden decoration and cutting. Shows up well under artificial light and presents a very attractive appearance for an unusually long period in the Fall.
Pkt., 10c

ASTER-MUM.—A selection from "Giant Comet." Of immense size, resembling Chrysanthemums in form, hence the name "Aster-mum." Plants are about two feet high with good stems. A little earlier than "Crego." Three colors.

White, Pink, Lavender.

Pkt., 10c; three, one of each color, 25c
QUEEN OF THE MARKET.—Best early Aster, of graceful spreading habit. Two weeks ahead of other varieties.

Rose, White, Dark Blue, Light Blue, Mixed.
Pkt., 10c; $\frac{1}{8}$ oz., 40c

"MIKADO" OR ROCHESTER.—Another new type of Aster of great merit. A favorite with florists. Has very long, narrow petals straight at the outside, but toward the center they cross and recross in splendid confusion, giving the bloom a beautiful, fluffy fullness. Mikado is very vigorous, with strong branching habit, producing a blossom on every shoot.

Lavender—Pink. Pkt., 15c; $\frac{1}{8}$ oz., \$1.00

SEMPLE'S LATE BRANCHING.—A magnificent strain; flowers large, beautiful, double, and borne on long stems.

White, Rose, Shell Pink, Lavender, Purple, Mixed. Pkt., 10c; $\frac{1}{8}$ oz., 35c

LAVENDER GEM.—An exquisite shade of true lavender, of the comet type; free flowering erect habit; one of the finest yet produced.

Pkt., 15c; $\frac{1}{8}$ oz., \$1.00

DAYBREAK.—Flowers are full, large and round, borne freely on long stems. Color a dainty shell pink. Very early. Height, 18 inches.
Pkt., 10c; $\frac{1}{8}$ oz., 75c

PURITY.—Same as "Daybreak," excepting color, which is a pure, glistening white.
Pkt., 15c; $\frac{1}{8}$ oz., 75c

GIANT COMET.—One of the handsomest of the tall growing sorts; flowers large and beautiful; petals long and twisted.

Rose, Crimson, Dark Blue, Light Blue, White, Mixed. Pkt., 10c; $\frac{1}{8}$ oz., 50c

ASTER PLANTS

In season we offer fine large plants of all Standard Varieties. These are well rooted and sure to give good results. See Plant Dept.

ANNUAL FLOWER SEEDS—Continued

Acroclinium—Everlasting

Growing about 15 inches high, bearing white or rosy pink flowers, when cut in bud state, can be dried and used for winter bouquets. **Pkt., 5c**

Ageratum

MEXICANUM NANUM.—Adapted for borders and bedding; covered with feathery blossoms all Summer; sow seed in early Spring in boxes to transplant or sow out of doors and thin to 4 to 6 inches.

Dark Blue, White or mixed, Pkt., 5c; 1/4 oz., 15c

Ammobium

One of the hardiest everlastings. The flowers are not large, but beautiful in form, and pure white. Very desirable for Winter bouquets. An easily grown annual. **Pkt., 5c**

Alyssum

Fine for borders, edging and rockwork; a dainty little flower. In borders, sow thickly so as to form masses. Sow in Spring or late in August.

Maritimum. Sweet. Pkt., 5c; oz., 30c

Maritimum. Little Gem. Pkt., 5c; oz., 50c

Procumbens. Of trailing habit; profuse bloomer. Pkt., 10c; 1/4 oz., 20c

Amaranthus

Handsome foliage and interesting flowers, making a striking effect in borders and beds.

Melancholicus Ruber. Deep red foliage; dwarf. Pkt., 5c

Caudatus. Graceful, drooping flowers. Pkt., 5c

Tricolor, or Joseph's Coat. Foliage scarlet yellow and green. Pkt., 5c

Bachelor's Button

CENTAUREA CYANUS or Corn Flower.—A hardy annual, easily cultivated. Has recently been greatly improved, and now produces handsome flowers of a great variety of rich colors. Borne on tall, branching stems, with but little foliage. Striking and handsome.

Cyanus. Fine single mixed. Pkt., 5c; oz., 25c

Cyanus. Fine double mixed. Pkt., 10c; oz., 50c

Cyanus. Alba, single white. Pkt., 5c; oz., 35c

Cyanus. Azurea, single blue. Pkt., 5c; oz., 35c

Balloon Vine

A rapid growing climber, 10 ft. high, inflated seed pods, flowers white. **Pkt., 5c; oz., 25c**

Balsam—“Lady Slipper”

Handsome plants, producing masses of various colored flowers, half hardy.

Tall Double Camellia Flowered mixed, Pkt., 5c; 1/4 oz., 25c

Dwarf Double mixed. Pkt., 5c; 1/4 oz., 15c

Brachycome—Swan River Daisy

A charming flower in white and blue varieties. The plants grow about twelve inches in height and bloom freely. They make elegant border plants.

Blue, White, Mixed. Pkt., 5c

Browallia—Lavatera

Handsome and free flowering. Covered all summer with rich blue and white flowers. 18 inches high.

Mixed. Pkt., 5c

Calendula—Pot Marigold

The well-known Pot Marigold, valued by Europeans for flavoring soups and stews. Flowers are dried in Fall and kept in paper bags for use. In mild climates this plant will bloom nearly all the year round. Plant in early Spring in open ground.

Double Mixed. Pkt., 5c; 1/4 oz., 15c

Catchfly—Silene

A hardy annual, yielding for a long time a profusion of umbels of bright colored flowers. The plant is covered with glutinous moisture, to which flies adhere; hence its name.

Fine Mixed, All Colors. Pkt., 5c; oz., 25c

Canary Bird Flower—*Tropaeolum Canariensis*

Climbing plant with graceful foliage, yellow flowers. **Pkt., 5c; 1/4 oz., 15c**

Calliopsis

Very showy and attractive, always covered with a mass of bright flowers, fine cut flowers.

Dwarf Single Mixed. Pkt., 5c; 1/2 oz., 25c

Double Mixed. Pkt., 5c; 1/2 oz., 25c

Candytuft—*Iberis*

One of the most highly prized annuals for beds or masses, very useful for cutting.

Odorata. Pkt., 5c; oz., 25c

White Empress. Pkt., 10c; oz., 50c

Lilac. Pkt., 5c; oz., 75c

Dark Crimson. Pkt., 5c; oz., 50c

Mixed. Pkt., 5c; oz., 50c

Celosia Cristata—Cockscomb

Very attractive and showy, producing massive heads of deeply colored flowers.

PRESIDENT THIERS.—Dwarf, crimson comb.

Pkt., 10c; 1/4 oz., 75c

FINEST VARIETIES.—Mixed.

Pkt., 5c; 1/4 oz., 50c

Celosia Plumosa—(Feathered)

THOMPSONI MAGNIFICA FEATHERED.—

Splendid new class, for pots or open ground, especially fine for market. Mixed.

Pkt., 10c; 1/4 oz., 50c

MIXED.—Colors of great brilliancy.

Pkt., 5c; 1/4 oz., 40c

Centaura

ODORATA CHAMELEON.—Handsome fragrant yellow and rose flowers. **Pkt., 10c; 1/4 oz., 50c**

IMPERIALIS.—Sweet Sultan: Sweet scented flowering variety. **Pkt., 10c; 1/4 oz., 35c**

YELLOW SWEET SULTAN.—(*Suaveolens*) Grecian Corn flower. **Pkt., 10c; 1/4 oz., 30c**

Castor Bean—*Ricinus*

Highly ornamental, of stately growth and having large leaves of bronze or glossy green; of very easy culture.

SANGUINEUS.—Brilliant scarlet stems and fruit.

Pkt., 5c; oz., 20c

ZANZIBARIENSIS.—Surpasses all in size and beauty of colors. Mixed. **Pkt., 5c; oz., 30c**

BORBONIENSIS ARBOREUS.—The largest variety.

Pkt., 5c; oz., 20c

MIXED.—Best varieties.

Pkt., 5c; oz., 15c

NEW HYBRID. PANORAMITANUS.—Dark brown leaves; very decorative. **Pkt., 5c; oz., 25c**

Chrysanthemum

Very showy, effective and desirable as Summer flowering plants. Hardy annuals.

CORONARIA.—Double mixed.

Pkt., 5c; 1/4 oz., 15c

CARINATUM.—Single mixed.

Pkt., 5c; 1/4 oz., 15c

Clarkia

Hardy annual of easy growth, produce a fine effect massed in beds. flowers bright and attractive.

Single and Double mixed. Pkt., 5c; 1/4 oz., 25c



ANNUAL FLOWER SEEDS—Continued

Cobaea Scandens

(Plants in season.)

A handsome, rapid-growing, climbing plant, having large, bell-shaped flowers, beautiful foliage and peculiarly delicate and curious tendrils.

Purple. Pkt., 10c; $\frac{1}{4}$ oz., 25c
White. Pkt., 10c; $\frac{1}{4}$ oz., 50c

Cosmos

Seed sown in March or April and transplanted to open ground will produce plants three to five feet high by September, which thereafter and until November, will yield hundreds of blossoms three inches across; they are of various shades, from pure white to purplish crimson. Both foliage and flowers are unsurpassed for bouquets and vases. Annual. (Plants in season.)

LADY LENOX.—A magnificent type of extra ordinary size and rare beauty. Color, a delightful pink. Beautiful under artificial light. The oval petals form a perfectly circular flower, which keeps well when cut. Pkt., 10c; $\frac{1}{4}$ oz., 25c

KLONDYKE.—Blooms very early and continuously; three to four feet high; flowers large, golden yellow and borne on long stems.

Pkt., 10c; $\frac{1}{4}$ oz., 25c

MAMMOTH FLOWERING.—White, pink, crimson or mixed. Pkt., 10c; $\frac{1}{4}$ oz., 25c

MARGUERITE.—New and odd; very pretty, petals fringed. Mixed. Pkt., 10c; $\frac{1}{4}$ oz., 25c

EARLY DAWN.—White, flushed pink; very early. Pkt., 10c; $\frac{1}{4}$ oz., 25c

Cypress Vine—Ipomoea Quamoclit

Climber with rapid growth, handsome foliage and bright attractive flowers.

White, Scarlet or Mixed. Pkt., 5c; oz., 25c

Delphinium—(Larkspur)

The annual Delphiniums are quite hardy and bloom in the later Summer months, furnishing flowers of striking beauty in form and color. Tall varieties are suitable for shrubberies and borders, while the dwarf sorts produce charming effects in beds.

DWARF ROCKET.—Finest colors. Double mixed. Hardy annual. Pkt., 5c; $\frac{1}{2}$ oz., 25c

STOCK FLOWERED, OR TALL BRANCHING. Finest double mixed. Pkt., 10c; $\frac{1}{4}$ oz., 25c

Euphorbia

Suitable for beds of tall growing plants; foliage very ornamental.

VARIEGATA.—Snow on the Mountain. Variegated foliage. 2 feet. Pkt., 5c

HETEROPHYLLA.—Painted leaf. Annual poinsettia. 3 feet. Pkt., 10c

Eschscholtzia—California Poppy

These are generally classed and grown as annuals, but are true hardy perennials. See description under perennials.

Echinocystis, Lobata—Wild Cucumber

A rapid-growing climber. Very good for covering old fences or trellises. Hardy annual.

Pkt., 5c; oz., 25c

Four O'Clock—Mirabilis Jalapa

MARVEL OF PERU.—Easy culture, bearing a profusion of bright flowers of various shades. Flowers open at four o'clock, close in the morning.

Choice Mixed. Pkt., 5c; oz., 15c



Perennial
Gaillardia
Page 78.

PLANTS in
Season

Gaillardia—Blanket Flower

Very showy garden plant, with brilliant flowers; free blooming from early Summer until Autumn; especially effective in masses.

PICTA.—Large, handsome, crimson and orange flowers. Hardy annual. Single.

Pkt., 5c; $\frac{1}{4}$ oz., 15c

PICTA LORENZIANA.—Double; finest mixed; annual.

Pkt., 5c; $\frac{1}{4}$ oz., 25c

MIXED.—Annual. Many shades of yellow, orange and scarlet.

Pkt., 5c; $\frac{1}{4}$ oz., 15c

Gilia

A hardy annual, growing 12 inches high, small delicate flowers valuable for rock work or borders.

Tall sorts Mixed. Pkt., 5c; $\frac{1}{2}$ oz., 15c

Godetia

Profuse and constant bloomers, compact and bushy in growth, flowers of exquisite shades and colors.

Semi-dwarf, Fine Mixed. Pkt., 5c; $\frac{1}{4}$ oz., 20c
Lord Roberts, Dark Red. Pkt., 10c; $\frac{1}{4}$ oz., 25c

Globe Amaranth—Gomphrena

An old favorite, everlasting flower.

Mixed. Pkt., 5c; $\frac{1}{4}$ oz., 15c

Gourds

For covering verandas and trellis work, rapid growth, bearing fruits of curious sizes.

Calabash. Pkt., 5c; oz., 35c

Dipper. Pkt., 5c; oz., 35c

Bottle and Egg Shaped. Pkt., 5c; oz., 35c

Large Varieties Mixed. Pkt., 5c; oz., 35c

Small Varieties Mixed. Pkt., 5c; oz., 35c

Helichrysum—Straw Flower

MONSTROSUM.—Everlasting. One of the best for Winter bouquets. Hardy annual. Double mixed.

Pkt., 5c; $\frac{1}{4}$ oz., 25c



ANNUAL FLOWER SEEDS—Continued

Hibiscus—Marshmallow

Of easy culture and exceedingly showy; has large cup-shaped flowers.

Extra Mixed.

Pkt., 5c

Hyacinth Bean—Dolichos Lablab

Rapid growing, ornamental, climbing annuals, bearing clusters of beautiful purple and white flowers, followed by highly ornamental seed pods. Mixed.

Pkt., 5c; oz., 15c

Hollyhocks—New Annual

HYBRIDA SEMPERFLORENS.—This splendid variety will bloom in August, from Spring planting, continuing until frost. This is a great advantage, as other varieties do not bloom until the second year. Try them.

Finest New Single Mixed. Pkt., 10c; $\frac{1}{4}$ oz., 50c

Hunnemannia—Giant Yellow Tulip Poppy

FUMARIAEFOLIA.—Best of the poppy family for cutting, remaining in good condition for several days. Seed sown early in May will, by the middle of July, produce plants covered with their large, buttercup-yellow, poppy-like blossoms, and never out of flower until a hard frost.

Pkt., 10c; $\frac{1}{4}$ oz., 25c.

Ice Plant**MESEMBRIANTHEMUM CRYSTALINUM.**

Pretty Summer trailing annual for vases and rock work; leaves covered with ice-like drops.

Pkt., 5c; oz., 35c

Kochia Trichophylla—Summer Cypress or Fire Bush

Forms symmetrical highly decorative bushes, foliage green, turning to fiery red in Autumn.

Pkt., 10c

Linum—Crimson Flax

ANNUAL.—Beautiful and effective; hardy, about 18 inches high; covered with bright scarlet flowers.

Pkt., 5c; oz., 25c

Lobelia

Delicate, low-growing, annual plants of the greatest value for borders, ribbons, edgings, rock work and hanging baskets.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

HYBRID HAMBURGIA.—New; light blue with white eye, long, drooping flower stalks; fine for hanging baskets or boxes; grows rapidly.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

GRACILIS.—Blue, trailing; beautiful for baskets.

Pkt., 5c; $\frac{1}{4}$ oz., 25c

CRYSTAL PALACE COMPACTA.—Dwarf flowers very fine and rich, deep blue; finest for bedding and edging.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

COMPACTA.—Finest mixed. Pkt., 5c; $\frac{1}{4}$ oz., 50c
COMPACTA EMPEROR WILLIAM.

Pkt., 10c; $\frac{1}{4}$ oz., 40c

WHITE LADY.—New, white flowering.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

Marigold or Tagetes

A hardy plant in dwarf and tall varieties; foliage bright green and deeply cut. Flowers are various shades of yellow and brown. French or dwarf varieties good for borders. African or tall varieties good for background.

AFRICAN, Tall or Dwarf, Double Mixed.

Pkt., 5c; $\frac{1}{4}$ oz., 20c

FRENCH, Tall or Dwarf, Double Mixed.

Pkt., 5c; $\frac{1}{4}$ oz., 20c

Mimosa—Sensitive plant

PUDICA.—Very curious and interesting plant, its leaves closing if touched or shaken. Annual.

Pkt., 5c

Moon Flower—Ipomoea Mexicana Grandiflora

Rapid growing climber belonging to the "Morning Glory" family. The flowers are large, waxy white, and very showy.

Pkt., 10c; $\frac{1}{4}$ oz., 20c

Mignonette—Reseda

A quick-growing annual, highly esteemed for its delicate fragrance. It grows most rapidly and produces the largest and finest spikes of blossoms during cool, moist weather of early Spring and late Fall months, but will flower freely throughout the Summer from seed sown early in Spring. A second planting should be made about the first of August to furnish large, fine spikes of flowers during the cool Fall months.

ODORATA GRANDIFLORA.—Large, well-formed, fragrant flowers. Pkt., 5c; oz., 25c

ALLAN'S DEFIAENCE.—A choice strain for forcing. Spikes of enormous size and intensely rich perfume. One of the most desirable for open ground.

Pkt., 10c; $\frac{1}{4}$ oz., 40c

PARSON'S WHITE.—Flowers almost pure white; very fine.

Pkt., 10c; $\frac{1}{4}$ oz., 35c

MACHET--White.—Splendid dwarf variety, best white.

Pkt., 15c; $\frac{1}{4}$ oz., \$1.00

GOLDEN QUEEN.—Dense, dwarf growth; flowers golden yellow; deliciously fragrant.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

MACHET--Red, Victoria.—Dwarf, compact flowers red; fine.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

Morning Glory

The tall varieties are popular, well known, rapid growing climbers of the easiest cultivation. Very fine for covering arbors, trellises, porches, etc. The Minor, or Dwarf varieties flower very freely and do not require support.

CONVOLVULUS MAJOR.—Tall, choice single, mixed, all colors.

Pkt., 5c; oz., 25c

DOUBLE MIXED.—Tall. Pkt., 10c; $\frac{1}{4}$ oz., 25c

CONVOLVULUS MINOR.—Dwarf mixed.

Pkt., 5c; oz., 25c

IMPERIAL JAPANESE FRINGED.—These have very large fringed flowers in a great variety of the most exquisite colorings; handsome, variegated foliage. Mixed.

Pkt., 10c; oz., 25c

JAPANESE DOUBLE MIXED.—This double Japanese sort is very fine in leaf, flower and growth.

Pkt., 25c; oz., \$1.00

Nemophila—Love Grove

Hardy annuals of neat, dwarf, compact growth; fine for borders, pot culture or rockeries. Flowers blotted and beautiful. Mixed varieties.

Pkt., 5c; $\frac{1}{4}$ oz., 15c

Nicotiana

A very showy plant, producing star-shaped flowers of delicious perfume. Taken up in the Fall, cut back and potted, will bloom freely all Winter. Half hardy annual, three feet high.

AFFINIS.—White.

Pkt., 5c; $\frac{1}{4}$ oz., 25c

HYBRIDIA.—Splendid mixed.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

SANDERAE.—Resembles the "Affinis," but unlike that variety, does not close up in the daytime. The plant is literally covered with carmine-red, fragrant flowers.

Pkt., 15c

SYLVESTRIS.—Pure white, fragrant, drooping flowers; deep green foliage.

Pkt., 5c; $\frac{1}{4}$ oz., 25c

Nigella

LOVE-IN-A-MIST, OR DEVIL-IN-THE-BUSH.—Compact growing, free flowering plants with curious looking, showy flowers and finely cut foliage. Hardy annuals. Mixed.

Pkt., 5c; $\frac{1}{2}$ oz., 15c



Nasturtiums

NASTURTIUMS are hardy annuals, of easy cultivation and flower best where the soil is not too rich. The new hybrids include various shades of rose, salmon, bright red, pale yellow, etc., either self-colored or spotted, mottled, striped and margined.

For covering trellises, fences, arbors, piazzas, trailing from vases, over rockwork, for bedding, etc., nothing can equal the gorgeous effect produced by their marvelous wealth of bloom, borne in uninterrupted splendor from early Summer until cut down by frost. The seeds, picked green and pickled in vinegar have a piquant, appetizing flavor that is a valuable addition to relishes or pickles.

DWARF NASTURTIUMS

CHAMELEON.—Variable colorings in bronze, crimson and yellow, rich markings.

CLOTH OF GOLD.—Brilliant scarlet, golden yellow leaves.

EMPEROR OF INDIA.—Intense scarlet, purplish green leaves

PRINCE HENRY.—Lemon yellow, with carmine blotches

RUBY KING.—Ruby red

VESUVIUS.—A rich salmon orange, dark foliage.

PRICES:

NAMED VARIETIES.— Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 40c

MIXTURE.—Of standard varieties.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c

TALL NASTURTIUMS

COQUETTE.—Variable flowers marked and blotched in many brilliant colors.

KING THEODORE.—Large velvety crimson flowers, very attractive dark green leaves.

MOONLIGHT.—Soft primrose.

SUNLIGHT.—Large, bright golden yellow flowers.

PRINCE HENRY.—Fine lemon yellow, clear carmine blotches

TWILIGHT.—Extra large light salmon, suffused rosy salmon

PRICES:

NAMED VARIETIES.— Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 30c; lb., \$1.00

MIXTURE.—Of standard tall varieties

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; lb., 75c

LOBB'S CLIMBING

A distinct strain of tall Nasturtiums, flowering more freely than the standard varieties.

ASA GRAY.—Large, bright lemon flowers

BLACK PRINCE.—Such a rich, dark maroon as to appear velvety black. Foliage very dark.

CROWN PRINCE OF PRUSSIA.—Rich, deep ruby garnet.

SPITFIRE.—Free-blooming, brilliant scarlet.

NAPOLEON.—Fine golden yellow, spotted brown.

IVY LEAF

TALL MIXED.—Climbing habit with pointed leaves of rich ivy green veined white, resembling English Ivy. Flowers have narrow petals and are quite distinct and pleasing.

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 50c

DWARF MIXED.—

Pkt., 5c; oz., 20c; $\frac{1}{4}$ lb., 60c

QUEEN VICTORIA.—Deep orange

PRICES:

NAMED VARIETIES.—

Pkt., 5c; oz., 15c; $\frac{1}{4}$ lb., 40c

MIXTURE.—Of standard varieties Lobb's climbing.

Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00

VARIEGATED

TALL MIXED.—Foliage beautifully marked and marbled yellow and cream on the green ground, some leaves appearing almost white. Flowers come in all colors and markings.

Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 75c

DWARF MIXED.—

Pkt., 10c; oz., 25c; $\frac{1}{4}$ lb., 75c

PANSIES

Fancy Strains of Mixed Pansies

TRIMARDEAU GIANTS.—Of remarkably large size and robust growth; very fine.

Pkt., 10c; $\frac{1}{4}$ oz., 60c; oz., \$2.00

FINE MIXED.—A fine assortment of colors.

Pkt., 5c; $\frac{1}{4}$ oz., 25c

LARGE FLOWERING MIXED.—No pains are spared by our grower to make this strain absolute perfection in form, firmness of texture, size, freedom of bloom, and elegance and variety of markings and colorings.

Pkt., 25c; $\frac{1}{4}$ oz., 75c

**MASTODON
PANSIES**
At the
Panama
Pacific
Exposition

See
Specials
Below

Plants
in
Season
See
Plant
Dept.



Mastodon Pansies

FOR years the Steele Pansy Gardens have grown our Giant Pansies and cooperated in securing the finest strains from the world's most celebrated growers. These have been carefully resellected and bred up to their present surpassing excellence, and for giant size, substance, form and coloring we have never seen Pansies to compare with them. Named varieties and special strains are grown separately and the seed collected by hand and carefully blended into what we believe to be the finest mixture ever offered.

MASTODON PANSY SEED, DIAMOND MIXED. PKT., 25c; TRADE PKT., \$1.00

NEW—PANAMA-PACIFIC, MASTODON BRONZE, MAD. STEELE, AND MASTODON WHITE

PANAMA-PACIFIC.—A magnificent deep yellow, some with dark centers, some clear yellow. This was the wonderful Golden Yellow Pansy of which the special planting of 200,000 was made around the Palaces of the Panama-Pacific Exposition.

Pkt., 25c

MADAME STEELE.—“Elks purple”—a deep rich true royal purple pansy of great substance and giant size, of the true mastodon type. Pkt. 25c

LARGE FLOWERING PANSIES

ADONIS.—A distinct and beautiful shade of light blue with white center and dark blotch, a most pleasing and attractive variety. Pkt., 10c

GOLDEN QUEEN.—A rich, pure yellow of the grandest form and size. A valuable addition to the yellows, which are very hard to produce in the Giant strains. Pkt., 10c

GIANT DARK BLUE.—A splendid blue black, very elegant, and of good substance; should be grown by everyone. Pkt., 10c

GIANT STRIPED.—A superior strain of truly giant pansies, with the most beautiful striped markings in the richest dark shades. Very popular in Europe. Pkt., 10c

PRINCE HENRY.—A new giant variety, of a brilliant, dark indigo blue, with violet luster, each petal having a large, dark brown, veined blotch. Edges of petals slightly ruffled. Pkt., 15c

MASTERPIECE -- GIANT RUFFLED.—The mammoth size, richness and beauty of colorings and frilled or ruffled character of the petals, make “Masterpiece” one of the most distinct and interesting Pansies ever developed. Pkt., 25c

MASTODON BRONZE.—New. A giant strain of bronze pansies in all the different shades from burnished brass to gold. Wonderfully tinged with nearly every color known to pansies. The most popular pansy we have. Pkt., 25c

MASTODON WHITE.—Dark center. Magnificent new white of great beauty and substance and of true Mastodon form. Pkt., 25c

MADAME PERRET.—A beautiful and distinct type with edges of petals frilled—bordered white. colors are dark wine—pink and red, beautifully veined. The earliest of the Giants, has sweetest perfume and keeps up its size of flower longer than any other. We offer the best strain. Pkt., 15c

SNOW FLAKE.—A grand, pure white, of extra fine quality. Pkt., 10c

VULCAN.—A magnificent new dark, glowing red with five large, black spots; blooms of perfect form and great substance; but its chief value lies in the superb coloring which has never been attained before. Be sure to try “Vulcan.” Pkt., 25c

EMPEROR WILLIAM.—A dainty cornflower blue, very showy; a splendid variety of large size and good substance. Pkt., 10c

KING OF THE BLACKS (Giant).—Immense velvety black flowers of the finest quality: the largest and best black pansy. Pkt., 10c



ANNUAL FLOWER SEEDS—Continued

Petunia, Hybrida

Too much cannot be said in praise of the Petunia as a bedding plant. Our clear, bright Summers seem to bring out its best qualities. During the whole season it is covered with large, showy blossoms, which are always bright and fresh, in spite of heat and drought. The flowers are of an almost infinite variety of colors and markings, and quite as varied in form; large and small, fringed and plain, double and single. Hardy annual. Large assortment.

Single Fine Mixed. Pkt., 5c; $\frac{1}{8}$ oz., 25c

Single Cholcest Mixed.—Saved from the best flowers. Pkt., 10c; $\frac{1}{8}$ oz., 50c

Single Fringed Mixed.—Large flowered; very desirable. Pkt., 25c

Double Cholcest Mixed.—Full and handsome. Pkt., 25c

Double Fringed Mixed.

GIANT CALIFORNIA.—**Extra Select.** Blotched and striped, fringed and ruffled. Mixed. Pkt., 25c

Double Carnation Flowered.—Annual.

Fringed; assorted colors. Mixed. Pkt., 5c; oz., 25c

SHIRLEY.—Annual. The range of color, extending from white through delicate shades of pink, rose and carmine, to the deepest crimson; fine for cutting. Best single mixed.

Pkt., 10c; $\frac{1}{8}$ oz., 25c

MISS SHERWOOD.—Annual. Petals satiny white, shading to chamois rose. Very beautiful and distinct. Pkt., 10c; $\frac{1}{8}$ oz., 25c

DOUBLE AMERICAN FLAG.—Annual. White, bordered with scarlet. Pkt., 5c; oz., 30c

UMBROSUM.—Annual. Rich vermillion, with a glossy black spot on each petal; single. Pkt., 5c; oz., 30c

KING EDWARD.—A new single annual variety, producing large flowers with great freedom. Color is deep scarlet, shaded crimson, red, with large black blotch. Height about 2 $\frac{1}{2}$ ft.

Pkt., 10c; $\frac{1}{8}$ oz., 25c

Portulaca—Rose Moss

Brilliant dwarf annuals, only six inches high, luxuriating in warm situations, and blooming profusely from early Summer to Autumn. For low beds and masses of color from Spring until frost, they are indispensable; colors range through innumerable shades of red, yellow, pink, white, striped, etc.

Single Mixed. Pkt., 5c; $\frac{1}{8}$ oz., 20c
Double Mixed. Pkt., 10c; $\frac{1}{16}$ oz., 25c

Rhodanthe—Swan River Everlasting

A beautiful everlasting annual for garden or pot culture; height, 1 ft.; mixed colors.

Pkt., 5c

ANNUAL and PERENNIAL Border and Bedding Plants. A select list of the most desirable varieties.

See Plant Department.

DIAMOND LAWN AND ROSE FERTILIZER is sufficient for the average city lot for one season, is easily applied, costs less than manure, is clean and odorless and is a complete fertilizer that will not only stimulate a quick, luxuriant growth, but will remain in the soil until used and not leach away and be lost. Ask for our Free Booklet "FERTILIZERS."

Perilla Nankinensis

Dark purple foliage plant. Half-hardy annual. Pkt., 5c

Phlox Drummondii

The blooms of Phlox Drummondii are unrivaled for richness and beauty of color, ranging from white to the deepest scarlet and purple. They are abundant, almost covering the foliage and of long duration. Very desirable, and easily grown. For cutting for bouquets or for bedding in masses they are unsurpassed. Hardy annual, one foot high.

Choice Mixed. Pkt., 5c; $\frac{1}{8}$ oz., 50c

Large Flowering.—Flowers large and brilliant. Mixed. Pkt., 5c; $\frac{1}{8}$ oz., 30c

Large Flowering.—Scarlet or white. Pkt., 5c; $\frac{1}{8}$ oz., 75c

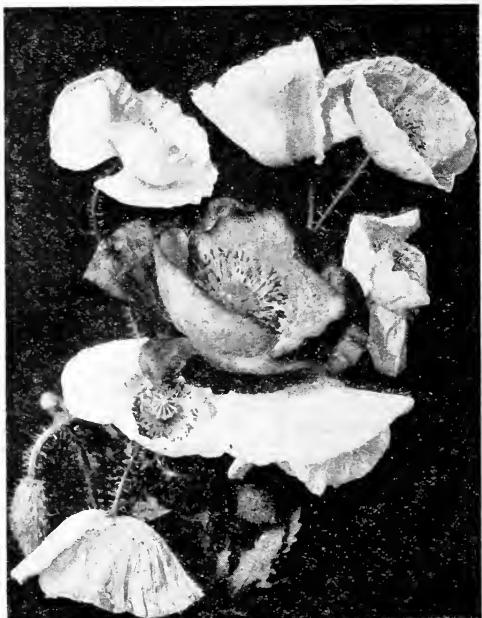
STAR PHLOX.—(Cuspidata.) Flowers have a distinctive star-like appearance, with white margins, excellent for bouquets.

Pkt., 10c; $\frac{1}{8}$ oz., 30c

DWARF.—Mixed; finest flowering sorts. Pkt., 10c; $\frac{1}{8}$ oz., 50c

Poppy—Papaver

The Poppy is well known and really a magnificent flower which is borne separately on tall stalks. Poppies are very showy and come in many bright and charming colors. Some are hardy annuals, others are perennials, and may be sown as the ground can be prepared.



Shirley Poppies

TO MAKE
AND KEEP **A Good Lawn**

YOU
NEED **A Lawn Roller**

We carry both "WATER WEIGHT" and CAST IRON ROLLERS. See page 84.

ANNUAL FLOWER SEEDS—Continued



Salpiglossis

Salpiglossis—Pointed Tongue

Produces very showy, funnel-shaped flowers of large size. Fine for beds. Half-hardy annuals.

DWARF.—Fine Mixed. Pkt., 5c; $\frac{1}{4}$ oz., 25c

GRANDIFLORA.—Mixed. Large flowering. Pkt., 10c; $\frac{1}{4}$ oz., 35c

Salvia—Flowering Sage

Very ornamental; flowers borne in spikes of fiery red or crimson, and continue in bloom in open ground until after severe frosts. Start in heat and transplant into light soil, one to two feet apart. Excellent for bedding in masses or single planting. Hardy annuals.

SALVIA ZURICH.—New Dwarf Early. The finest of all Dwarf Salvias. Very floriferous. Pkt., 15c; $\frac{1}{8}$ oz., \$1.00

SALVIA SPLENDENS.—Brilliant scarlet. Pkt., 10c; $\frac{1}{4}$ oz., 50c

BONFIRE—(Clara Bedman).—One of the finest Salvias ever introduced; compact bush about two feet in height and diameter. Its erect spikes of flowers of brilliant scarlet stand clear above the dark green foliage and completely cover the plant. Pkt., 15c; $\frac{1}{4}$ oz., \$1.00

Saponaria

Pretty, dwarf bedding plant. Red, white and scarlet flowers. Hardy annuals.

Fine Mixed, Pkt., 5c; $\frac{1}{4}$ oz., 20c

Scabiosa

SWEET SCABIOUS, or Mourning Bride.—Free-flowering annuals; colors, white, carmine, lilac, maroon, etc. Very effective for garden decoration and valuable for cutting.

DWARF or TALL DOUBLE Mixed, Pkt., 5c; $\frac{1}{4}$ oz., 20c

Schizanthus—Butterfly Flower

Beautiful, garden annuals, flowers charmingly fringed and delicately colored; one to two feet.

Mixed Colors, Pkt., 5c; $\frac{1}{4}$ oz., 25c

Statice—Sea Lavender

Beautiful for Winter bouquets; flowers very pretty.

ANNUAL VARIETIES.—Mixed.

Pkt., 5c

Stocks—Double Ten Weeks

These popular flowers are easily grown, and are so highly fragrant and of such beauty that they deserve a place in every garden. They are great improvements over the Gilliflowers of the olden times, being much larger and more densely double and of a great variety of colors.

DWARF LARGE FLOWERING.—White, scarlet, rose, light blue, or mixed. Pkt., 10c; $\frac{1}{4}$ oz., 60c

EMPEROR, or Perpetual.—Mixed.

Pkt., 10c; $\frac{1}{16}$ oz., 50c

VIRGINIAN STOCK.—A fine, early flowering plant. Hardy annual.

Mixed,

Pkt., 5c; $\frac{1}{4}$ oz., 15c

Sunflower—*Helianthus*

Stately growing annuals with immense golden yellow flowers; effective for garden decoration.

DOUBLE DWARF.—Covered with three-inch double flowers of brightest golden yellow.

Pkt., 5c; oz., 50c

GLOBOSUS FISTULOSUS.—Saffron, very large, double and handsome.

Pkt., 5c; oz., 25c

MULTIFLORA.—Beautiful, double yellow flowers.

Pkt., 5c; oz., 25c

Thunbergia—Black Eyed Susan

Rapid-growing annual climbers; splendid for trailing over trellises, fences, etc., beautiful flowers borne in profusion; buff, white, orange, etc., four to six feet high.

Mixed Colors, Pkt., 5c; $\frac{1}{4}$ oz., 25c

Verbena

Very few annuals will make such a gorgeous display during the Summer months, or furnish more flowers for cutting, than the Verbena. Start seed in the house or under glass early in the Spring and transplant after three or four inches of growth. They flower in July and continue strong and healthy until destroyed by frost.

HYBRIDA CHOICEST MIXED.—Very finest.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

MAMMOTH MIXED.—Selected; extra large, fine.

Pkt., 15c; $\frac{1}{4}$ oz., 75c

FINE MIXED, Pkt., 5c; $\frac{1}{4}$ oz., 35c

CANDIDISSIMA.—Pure white.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

SCARLET DEFIA—Fiery scarlet.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

PINK SHADES, Pkt., 10c; $\frac{1}{4}$ oz., 50c

COERULEA.—Bright blue. Pkt., 10c; $\frac{1}{4}$ oz., 50c

Viscaria—Rose of Heaven

Their profuseness of bloom will always rank them among general favorites.

Fine Mixed, Pkt., 5c; $\frac{1}{4}$ oz., 15c

Zea—Ornamental Maize

JAPONICA VARIEGATA.—Finest Mixed. All varieties.

Pkt., 5c; oz., 20c

GRACILLIMA MIXED, Pkt., 5c; oz., 20c

Zinnia Elegans—Youth and Old Age

Of the easiest cultivation and should be in every collection. Half hardy annuals.

TALL DOUBLE MIXED, Pkt., 5c; $\frac{1}{4}$ oz., 25c

DWARF DOUBLE MIXED, Pkt., 5c; $\frac{1}{4}$ oz., 25c

CRISPA, CRESTED MIXED, Pkt., 10c; $\frac{1}{4}$ oz., 25c



PERENNIAL FLOWER SEEDS

Biennials are listed herewith as they are in their perfection the second year.

HARDY PERENNIALS are used for permanent garden and landscape effects, and many of them also produce choice cut flowers. The old fashioned perennials are in high favor now for Beds and Borders and the new and improved varieties are wonderful advancements over the older types. Most Perennial and Biennial Plants do not flower until the second year and for immediate results one year old plants of all the most desirable sorts can be furnished. **See plant department.**

Agrostemma

CORONARIA.—Strikingly beautiful for beds, ribbons and borders. Its graceful, pink-like flowers remain fresh a long time after being cut, and are very handsome in bouquets. Thrives in any soil.

Perennial.

Pkt., 5c

Alyssum

SAXATILE.—Showy, bright yellow flowers, blooms the first season if sown early indoors.

Pkt., 5c; $\frac{1}{4}$ oz., 25c

Anchusa—Italica

DROPMORE.—A splendid plant for hardy borders, growing to a height of about 5 ft. Remarkable for its free and continuous flowering habit. Flowers are of a beautiful gentian-blue color.

Pkt., 15c

Antirrhinum—Snapdragon

One of the most useful and showy of border plants of almost every color, and striped as beautifully as Carnations. They have recently been much improved and are now really magnificent. Hardy perennial.

Grandiflora—Tall.

Three Splendid Novelties

FIREFLY.—Scarlet and white.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

QUEEN VICTORIA.—New large; pure white.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

VENUS.—Pink, on white ground; white throat.

Pkt., 10c; $\frac{1}{4}$ oz., 25c

LUTEUM.—Yellow.

Pkt., 10c; $\frac{1}{8}$ oz., 35c

TALL, FINEST MIXED. Pkt., 10c; $\frac{1}{4}$ oz., 25c

DWARF, FINEST MIXED. Pkt., 5c; $\frac{1}{4}$ oz., 25c

Arabis—Rock Cress

One of the earliest and prettiest Spring flowers, unequalled for rockeries or edging, withstands the drought, pure white flowers.

ALPINA

Pkt., 5c

Asparagus Sprengeri—Emerald Feather

One of the best of the new so-called ferns. Feathered foliage; useful for bouquets, wreaths or sprays, remaining perfect for weeks after cutting. Grows freely the whole year round. (For plants see Plant Department.)

Pkt., 10c; 50 seeds, 25c

Asparagus Plumosus—Asparagus Fern

One of the prettiest house plants. The leaves are bright green, gracefully arched, surpassing Maidenhair Ferns in grace, delicacy of texture and richness of color. (For plants see Plant Department.)

Pkt., 25c; 50 seeds, 50c

Asters—Hardy Perennial—(Michaelmas Daisy)

Handsome flowers of easy culture, that appear at a time when flowers are scarce. Make an attractive garden display and are very useful as cut flowers.

Large Flowering mixed.

Pkt., 10c

Begonia

Begonias are among the most beautiful of flowering plants, especially adapted to pot culture. Try our select seed; the finest in the world.

REX.—Ornamental leaved varieties.

Mixed.

Pkt., 25c

DOUBLE TUBEROUS ROOTED.

—Finest

strain.



Calceolaria

Calceolaria

Very handsome and much admired. Produces a profusion of beautiful flowers of unique form and colorings. Fine for pot culture.

HYBRIDA.—Finest mixed.

Pkt., 50c

Candytuft

SEMPERVIRENS.—Perennial. White.

Pkt., 10c; $\frac{1}{4}$ oz., 25c

Canna—Indian Shot

Ornamental, tropical looking plants of easy culture; large and beautiful flowers. Hardy perennial. For Canna Bulbs, see Plant Department.

CROZY'S NEW LARGE FLOWERING MIXED.
Pkt., 10c; oz., 40c

NEW FRENCH AND GERMAN VARIETIES.
MIXED, Pkt., 10c; oz., 35c

Canterbury Bells—Campanula

Very ornamental garden plants of the easiest culture; hardy biennial, two and a half feet high, producing large, nodding and charming bell-shaped flowers of many exquisite shades.

Single Mixed. Pkt., 5c; $\frac{1}{4}$ oz., 25c
Medium Double Mixed. Pkt., 10c; $\frac{1}{4}$ oz., 50c

CALYCANTHENA.—(Cup and Saucer.) White, rose, lilac, blue or mixed. Pkt., 5c; $\frac{1}{4}$ oz., 75c

PERSICIFOLIA.—Hardy perennial; very fine, blooms in June. Mixed. Pkt., 15c; $\frac{1}{4}$ oz., 75c

DIAMOND MIXTURE.—Finest sorts; all colors, single and double. Pkt., 10c; $\frac{1}{4}$ oz., 50c



PERENNIAL FLOWER SEEDS—Continued

Carnation—*Dianthus Caryophyllus*

Carnations are Tender Perennials, being easily Winter killed.

Universally admired, deliciously fragrant. There is no more satisfactory flower to grow and few that are as lasting. The seed we offer is the finest obtainable and our new strains of perpetual flowering carnations will bloom the first year. **FINE PLANTS IN SEASON. SEE PLANT DEPARTMENT.**

CHABAUD EVERBLOOMING.—Flowers in five to six months from sowing.

Extra Select, Double White, Red or Yellow.

Pkt., 15c

Extra Choice Double Mixed.

Pkt., 15c

Fine. Double Mixed.

Pkt., 10c

AMERICAN MIXED.—Finest new varieties

Pkt., 25c

Extra choice.

GRENADIN.—Scarlet; charming double scarlet, dwarf and compact; very early, free flowering; especially fine for borders. Pkt., 15c; $\frac{1}{8}$ oz., 75c

Margaret Carnations

Bloom in four months from seed. Separate colors, white, dark red, mixed.

Pkt., 10c; $\frac{1}{8}$ oz., 40c

Chrysanthemum

FRUTESCENS—(Marguerite, or Paris Daisy).—Beautiful for cutting and pot culture, long stemmed single white flower with golden center. Pkt., 10c; $\frac{1}{8}$ oz., 25c

Cineraria

Magnificent and indispensable flowering plants for the window garden. The flowers of white, blue, violet and crimson shades, covering the plant with a sheet of bloom.

HYBRIDA.—Grandiflora, prize mixed. Extra choice.

Pkt., 50c

HYBRIDA.—Fine mixed.

Pkt., 15c

DUSTY MILLER—(Maritima Candidissima). Beautiful silvery-leaved border plant; half hardy perennial.

Pkt., 5c; $\frac{1}{8}$ oz., 25c

Cianthus Dampieri—Glory Pea

A fine pot plant, bearing clusters of curiously-shaped and very brilliantly-colored flowers, scarlet with black center; half hardy perennial.

Pkt., 20c

Coix Lachrymae—Job's Tears

A broad-leaved, ornamental grass, having large, tear-shaped, hard, shining, pearl-gray seeds.

Pkt., 5c; oz., 25c

Coleus

Probably the best known and most popular of ornamental foliage plants. Leaves of all shades and colors. Tender perennial.

HYBRID MIXED.

Pkt., 15c

EXTRA CHOICE MIXED.

Pkt., 25c

Columbine—*Aquilegia*

Universal favorite for hardy borders and beds.

CANDIDISSIMA.—Large snowy white.

Pkt., 15c; $\frac{1}{16}$ oz., \$1.00

COERULEA.—Hybrid Mixed.

Pkt., 10c; $\frac{1}{8}$ oz., 75c

ROSE QUEEN.

Pkt., 15c; $\frac{1}{16}$ oz., \$1.00

CHRYSANTHA.—Golden Yellow.

Pkt., 10c; $\frac{1}{8}$ oz., 50c

Coreopsis

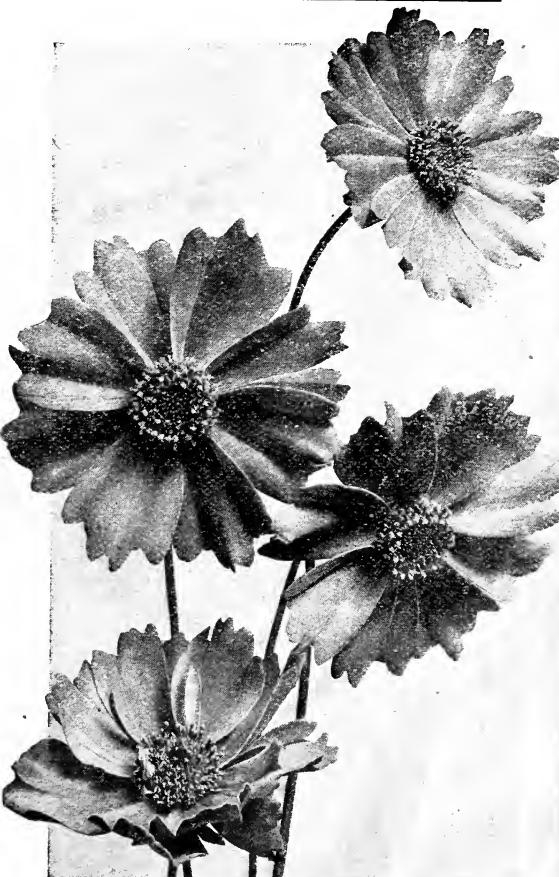
LANCEOLATA.—Large, showy, bright yellow flowers produced in great abundance from June till frost, fine for cut flowers. Pkt., 10c; $\frac{1}{8}$ oz., 25c

Cyclamen

Beautiful Winter and Spring flowering plants for the window and greenhouse. Not only are the flowers of striking beauty, but the foliage is also highly ornamental. The colors range through shades of pink, crimson, white, spotted, etc. Delicately fragrant. Bulbs in season.

GIGANTEUM HYBRIDUM.—White, dark red, salmon, pink or mixed.

Pkt., 25c



Coreopsis

Daisy—Bellis Perennialis

A well-known and popular low-growing plant bearing beautiful flowers. Hardy perennial.

LONGFELLOW.—Double Pink.

Pkt., 15c; $\frac{1}{16}$ oz., 50c

GIANT DOUBLE.—White or Pink.

Pkt., 15c; $\frac{1}{16}$ oz., 60c

Mixed, Pkt., 15c; $\frac{1}{16}$ oz., 40c

DOUBLE RED, TURBAN.

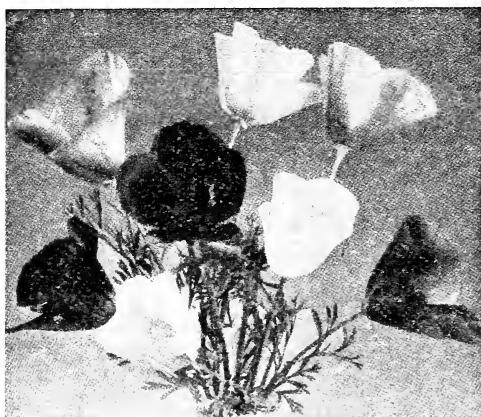
Pkt., 25c

SHASTA ALASKA.—Very hardy; profuse bloomers; flowers very large and borne on long stems; single; petals pure glistening white; dark center

Pkt., 15c



PERENNIAL FLOWER SEEDS—Continued

*Eschscholtzia—California Poppy***Dahlia**

A magnificent, Fall-blooming tuberous-rooted plant, which can be readily started from seed.

Double Mixed. Pkt., 10c; $\frac{1}{4}$ oz., 60c

Single Mixed. Pkt., 10c; $\frac{1}{4}$ oz., 50c

CACTUS.—Flowers odd and fantastic in shape: all colors.

Double Mixed. Pkt., 20c; $\frac{1}{4}$ oz., 50c

TWENTIETH CENTURY.—New single Dahlias of recent introduction; flowers large and handsome.

Pkt., 10c; $\frac{1}{4}$ oz., 25c

NEW SEMI-DOUBLE GIANT PEONY-FLOWERED. Pkt., 20c; $\frac{1}{4}$ oz., 50c

Datura

Large, strong-growing plants, trumpet-shaped flowers, white, sometimes tinted with blue. Roots can be preserved in the cellar, like Dahlias.

FASTUOSA HUBERIANA.—Double mixed.

Pkt., 5c; $\frac{1}{4}$ oz., 50c

CORNUCOPIA.—Very fragrant. Pkt., 5c

Delphinium—Larkspur

A very ornamental class of profuse blooming plants. Their tall spikes of many-colored flowers produce a striking effect when planted in groups.

PERENNIAL MIXED.—Single.

Pkt., 5c; $\frac{1}{4}$ oz., 20c

CHINESE AZUREUM.—Single blue; fine for cutting.

Pkt., 10c; $\frac{1}{4}$ oz., 30c

Digitalis—Fox Glove

A tall growing biennial, with large leaves and spikes of vari-colored and spotted flowers. A magnificent plant. Fine for borders or background. Easily grown. Mixed or white.

Pkt., 5c; $\frac{1}{4}$ oz., 25c

Dracaena

Ornamental greenhouse plant. Very desirable.

INDIVISA LINEATA.—Narrow, dark foliage.

Pkt., 10c

Forget-me-not—Myosotis

Beautiful Spring favorites, of easy growth, bearing clusters of lovely, small flowers. They are hardy enough to remain in the open ground except in very cold latitudes. Fine for borders and shady situations.

ALPESTRIS.—Of trailing habit, with pretty flowers Blue or mixed. Pkt., 5c; $\frac{1}{4}$ oz., 25c

VICTORIA.—Flowers large, bright azure blue; fine for borders and pots.

Pkt., 10c; $\frac{1}{4}$ oz., 25c

SEMPERFLORENS.—Dwarf; continuous bloomer; blue.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

Edelweiss—Leontopodium Alpinum

The true white-leaved Edelweiss of the Alps 6 inches tall.

Pkt., 25c

Eschscholtzia—California Poppy

These are among our most beautiful and popular perennials, although often grown as annuals being of the easiest culture and giving great satisfaction. They commence to bloom within a few weeks' time from Spring-sown seed and continue to flower profusely until late in the Autumn, forming nice, bushy plants, one foot high.

SINGLE WHITE OR MIXED. Pkt., 5c; oz., 40c

GOLDEN WEST.—Yellow with orange center—flowers large.

Pkt., 10c., oz., 50c

BURBANK'S CRIMSON. Pkt., 10c; oz., 75c

CARMINE KING. Pkt., 5c; oz., 50c

MANDARIN.—Inner side of petals rich orange, outer side brilliant scarlet; very striking; single.

Pkt., 5c; oz., 40c

DOUBLE MIXED. Pkt., 10c; $\frac{1}{4}$ oz., 50c

(For other sorts see Poppies.)

Gentiana

Fine, showy flowers. Should be in every flower garden. Hardy.

ACAU LIS. Pkt., 5c

Geranium

A half-hardy perennial, easily and quickly grown from seed.

ZONALE.—Extra choice, single mixed, large flowering. This is the well-known bedding Geranium.

Pkt., 10c

ZONALE.—Choice Double Mixed. Very finest and newest sorts.

Pkt., 25c

LADY WASHINGTON.—(Pelargonium.) Foliage green; flowers large, handsome, oddly marked; fine for pot culture. Finest mixed.

Pkt., 25c

Gerbera Hybrids—Jamesonii—

Transvaal Daisy

The plants are hardy and as vigorous growing as the original type, producing flowers which include a wonderful range of brilliant colors.

Pkt., 25c

Geum—Chiloense

Hardy perennial. Free-blooming plants. Fine for bouquets.

SCARLET, DOUBLE. Pkt., 5c

Gaillardia—Blanket Flower

Exceedingly beautiful, showy plants, one to two feet high. Grown in masses they are especially effective; large flowers, two or three inches across, produced from early Summer until frost; unrivaled for cutting. Also see Annuals.

GRANDIFLORA MAXIMA.—Perennial. Golden.

Pkt., 10c; $\frac{1}{4}$ oz., 25c

Gloxinia

Most charming, greenhouse plants of dwarf habit. Their flowers are produced in greatest profusion, and of the most exquisite and gorgeous colors, many of which are magnificently spotted, mottled and blended. Under the commonest culture they bloom continuously for months.

HYBRIDA GRANDIFLORA.—Splendid mixture of finest varieties.

Pkt., 25c

ROBUSTA.—Erect, hardy, superb mixture.

Pkt., 25c

Grevillea Robusta—Silk Oak

Very beautiful and graceful foliage plant with fern-like foliage—a splendid pot plant.

Pkt., 10c



PERENNIAL FLOWER SEEDS—Continued

Gypsophila—Baby's Breath

A pretty, free-flowering plant. Fine for bouquets.

PANICULATA.—Foliage fine; covered with tiny pure white flowers. Hardy, perennial.

Pkt., 5c; $\frac{1}{4}$ oz., 15c

REPENS.—Dwarf white, for rock-work.

Pkt., 10c; $\frac{1}{4}$ oz., 25c

Hollyhock, or Althaea

The modern Hollyhock is quite different and much more beautiful than the plant of twenty years ago, being much more compact in growth; the flowers are larger, richer colored, and the double varieties are fuller and of better form. For a background to a flower garden there can be nothing better. Hardy perennials; five feet high.

CHATTERS.—Superb Strains.

Double varieties of greatest perfection.

Scarlet, Rose-Pink, Lavender, Maroon, Yellow, White, Mixed. Pkt., 10c; $\frac{1}{4}$ oz., 75c

Heliotrope—Cherry Pie

Delightfully fragrant, free-blooming, tender, perennial plants. Splendid for bedding or pot culture. One foot high; of spreading habit. The fragrance of its flowers cannot be excelled in exquisite delicacy. Invaluable for bouquets.

CHOICE MIXED.

Pkt., 10c; $\frac{1}{4}$ oz., 25c

MAMMOTH FLOWERED.—Blue, white or mixed, very fine.

Pkt., 15c; $\frac{1}{4}$ oz., 50c

Kudzu Vine—Pueraria Thunbergia

Beautiful Japan climber, hardy perennial with fragrant purplish-violet, wisteria-like flowers.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

Lantana

A free-flowering shrubby plant, suitable for out-door or pot culture. The flowers emit an agreeable odor and are of many shades of purple, orange and white. Half-hardy perennial.

HYBRIDA FINE MIXED. Pkt., 10c; $\frac{1}{4}$ oz., 25c

Lemon Verbena

Every garden should have a few plants of this fragrant favorite. Its pale green foliage goes well with any flower.

Pkt., 10c

Linum—Crimson Flax

PERENNIAL.—Mixed.

Pkt., 5c; oz., 35c

Lobelia

CARDINALIS.—Flowers rich red; dark green foliage. Especially valuable for border decoration.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

Pink—Dianthus

The Dianthus family embraces some of the finest of all flowering plants. The blooms are of the richest and most pleasing colors, and nothing can surpass the exquisite fragrance of some varieties. They are hardy, and become perennial in warm climates.

CHINENSIS.—Single mixed. Pkt., 5c; $\frac{1}{4}$ oz., 15c

CHINENSIS.—Double mixed.

Pkt., 5c; $\frac{1}{4}$ oz., 25c

HEDDEWIGII.—Single mixed. Color varies from richest velvety crimson to delicate rose.

Pkt., 5c; $\frac{1}{4}$ oz., 25c

HEDDEWIGII.—Double mixed. Large flowering splendid.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

HEDDEWIGII DIADEMATUS FIREBALL.—Extra double brilliant dark scarlet. Very beautiful.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

Lupinus

Shrubby plants, bearing long spikes of various colored flowers.

PERENNIAL.—Mixed. Pkt., 5c; oz., 30c

Lychnis

ROSE CHAMPION—JERUSALEM CROSS.—

There are few plants that produce more brilliantly colored blossoms than Lychnis. They are borne in clusters and continue fresh and brilliant for a long time. Hardy perennials, one to three feet high.

HAAGEANA HYBRIDA.—Mixed.

Pkt., 10c; $\frac{1}{4}$ oz., 25c

Mimulus

MOSCHATUS, or Musk Plant.—Cultivated for its rich, musky odor. Should have a rich soil and ample moisture. Hardy perennial.

Pkt., 10c

TIGRINUS NANUS, or Monkey Flower.—Mixed, beautifully spotted, all colors. Pkt., 10c

Oenothera—Evening Primrose

Elegant for growing in an exposed position, in border or on rockery; constant bloomer all summer. Fine mixed.

Pkt., 5c; $\frac{1}{4}$ oz.. 25c

Pampas Grass—*Gynerium Argenteum*

A noble ornamental grass, easily grown from seed, producing majestic plumes that are invaluable for Winter decorations. See Plant Dept.

Pkt., 5c

Passiflora—Passion Flower

Most interesting and well-known climbers, bearing singularly beautiful flowers.

Mixed. Pkt., 10c

Poppies—Perennial

BRACTEATUM.—Hardy perennial; very showy red.

Pkt., 5c; $\frac{1}{4}$ oz., 20c

ICELAND, or Nudicaule.—These are of a very graceful, neat habit, with bright green, fern-like foliage, formed in tufts, from which issue slender stalks about 12 inches in height, bearing yellow, white or orange-scarlet flowers in endless profusion and most useful for cutting; hardy perennial. Mixed colors.

Pkt., 10c; $\frac{1}{4}$ oz., 25c

ORIENTAL.—Hybrida mixed. Very hardy and early flowering.

Pkt., 15c; $\frac{1}{4}$ oz., 50c

Pentstemon—Beard Tongue

Beautiful, hardy, perennial, herbaceous plant with extremely brilliant blooms. Their bell shaped flowers are borne on long spikes, and are produced abundantly all Summer.

Mixed. Pkt., 5c

Phlox Decussata—Perennial

Hardy, perennial; mixed. Pkt., 10c; $\frac{1}{4}$ oz., 50c

Peas—Perennial—*Lathyrus Latifolius*

In general appearance these are the same as Sweet Peas, but the flowers are not so fragrant; they bloom through long season, are perfectly hardy, and will live for years.

Red, White, or Mixed. Pkt., 10c; oz., 35c

Pink—Dianthus

The Dianthus family embraces some of the finest of all flowering plants. The blooms are of the richest and most pleasing colors, and nothing can surpass the exquisite fragrance of some varieties. They are hardy, and become perennial in warm climates.

CHINENSIS.—Single mixed. Pkt., 5c; $\frac{1}{4}$ oz., 15c

CHINENSIS.—Double mixed.

Pkt., 5c; $\frac{1}{4}$ oz., 25c

HEDDEWIGII.—Single mixed. Color varies from richest velvety crimson to delicate rose.

Pkt., 5c; $\frac{1}{4}$ oz., 25c

HEDDEWIGII.—Double mixed. Large flowering splendid.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

HEDDEWIGII DIADEMATUS FIREBALL.—Extra double brilliant dark scarlet. Very beautiful.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

HEDDEWIGII DIADEMATUS.—Double Diadem Pink. Extra fine.

Pkt., 5c; $\frac{1}{4}$ oz., 35c

HEDDEWIGII DIADEMATUS ALBUS.—Double white.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

HEDDEWIGII LACINIATUS.—Fine single and double, fringed, finest assorted colors.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

PLUMARIUS SCOTICUS.—Double perennial, large flowered, mixed.

Pkt., 10c; 1,000 seeds, \$1.00



PERENNIAL FLOWER SEEDS Continued

Phormium—New Zealand Flax

TENAX.—Has handsome, variegated foliage.

Pkt., 10c; $\frac{1}{4}$ oz., 50c

Primula—Primrose

The first three varieties named below are hardy, early blooming garden plants, and the others beautiful, Winter blooming house plants. Their various forms and blending of colors are exceedingly pleasing and effective. They thrive best in a sandy loam and leaf mold.

POLYANTHUS.—Early blooming, dwarf growing plants. Valuable for outdoor bedding. Mixed colors

Pkt., 10c; $\frac{1}{6}$ oz., \$1.00

VULGARIS.—Yellow, common, English Primrose. Pkt., 10c; $\frac{1}{4}$ oz., \$1.00

JAPONICA, or Japanese Primrose.—The beautiful, large, various colored flowers stand in whorls, pyramidically arranged on short flower stems one foot high; though perennial, new plants flower more freely, and seeds should be sown every year. Mixed varieties.

Pkt., 15c; $\frac{1}{6}$ oz., \$1.00

SINENSIS, or Chinese Primrose.—The beautiful, large fringed flowers stand in pyramids arranged on short flower stems. Blossoms of every shade of color, from pure white to deep crimson, and even deep blue; especially fine for Winter and Spring flowers in the house; easily grown; free bloomers. Finest mixed.

Pkt., 25c; $\frac{1}{12}$ oz., \$2.00

SINENSIS.—Pure white or red. Pkt., 25c

SINENSIS, ALBA.—New; finest large white with yellow eyes. Pkt., 50c

SINENSIS.—Double finest mixed. Pkt., 50c

OBCONICA GRANDIFLORA.—A lovely profuse bloomer, bearing beautiful single flowers. This is really an ever-blooming plant, producing elegant clusters of flowers continuously throughout the year.

Pkt., 10c; $\frac{1}{16}$ oz., \$1.50

Pyrethrum

Very ornamental plants, for both foliage and flowers.

PARTHENIUM AUREUM, or Golden Feather.

—Beautiful, gold leaved, flower white. Pkt., 10c; $\frac{1}{4}$ oz., 25c

SELAGINOIDES.—Fine, fern-leaved sort; flowers bright golden yellow. Pkt., 10c; $\frac{1}{4}$ oz., 35c

Rudbeckia—Golden Glow

NEWMANI.—Brilliant orange yellow petals around a large dark center. A beautiful and useful perennial for borders or as a single group. Pkt., 15c

FULGARIS.—Orange yellow. Perennial. Pkt., 15c

LACINIATA.—Fl. Pleno. Golden yellow. Pkt., 25c

Smilax—Medeola Asparagoideae

Charming, tender, perennial climber for greenhouse or window gardens. The foliage and stems are of pleasing light green; very graceful; excellent for decoration. (See Plants.)

Pkt., 10c; $\frac{1}{4}$ oz., 25c

Snapdragon—See Antirrhinum

Statice—Sea Lavender

Splendid for border or rockery, producing panicles of minute flowers, can be dried and used for Winter bouquets. Mixed. Pkt., 10c

Stipa Pennata—Feather Grass

Delicate white, feathery bloom, flowering the second season. 2 feet Pkt., 10c

Stocks—Winter or Brompton

BEAUTY OF NICE.—Very large flowers of a delicate flesh pink. Extra fine.

Pkt., 15c; $\frac{1}{6}$ oz., 75c

CRIMSON KING.—Rich blood crimson. Pkt., 15c

MONT BLANC.—Purest white. Pkt., 15c

MONTE CARLO.—Canary yellow. Pkt., 15c

QUEEN ALEXANDRA.—Soft rosy lilac. Pkt., 15c

VIOLET.—Mixed. Pkt., 10c; $\frac{1}{16}$ oz., 50c

Sweet Rocket—Hesperis

An old, hardy garden favorite. Fragrant white flowers; 2 to 3 feet. Pkt., 5c; $\frac{1}{4}$ oz., 15c

SWEET SULTAN.—See Centaurea

Sweet William—Dianthus Barbatus

A well-known, remarkably free-flowering plant of brilliant colors, ranging from snow white to darkest crimson and purple. They emit a very delicate and refreshing fragrance. Hardy perennial.

SINGLE MIXED.—Very beautiful.

Pkt., 5c; $\frac{1}{2}$ oz., 25c

DUNNETTI.—Dark crimson, single.

Pkt., 5c; $\frac{1}{2}$ oz., 30c

PURE WHITE.—Single. Pkt., 5c; $\frac{1}{2}$ oz., 30c

DOUBLE MIXED. Pkt., 10c; $\frac{1}{2}$ oz., 50c

Tritoma

Sometimes called Red Hot Poker. This is a fine, handsome plant. It is hardy, though requiring some protection through the Winter. The flowers are produced in large spikes of brilliant rich colors. Cut flowers keep a long time. Half-hardy perennial.

UVARIA.—Dazzling orange red. Pkt., 15c

Valeriana—Garden Heliotrope

Fine border plants; sweet scented flowers.

Fine Mixed. Pkt., 5c; $\frac{1}{4}$ oz., 20c

Vinca—Old Maid

Tender perennial. Fine for pot culture. Flowers white and pink.

Mixed. Pkt., 10c; $\frac{1}{4}$ oz., 30c

Violet

VIOLA ODORATA is the well-known English Violet, a free-flowering, hardy perennial. Easily grown from seed, though somewhat slow in germinating, succeeds best in partially-shaded, moist places.

THE CZAR.—Finest forcing Violet. Very large. Dark blue. Pkt., 15c; $\frac{1}{6}$ oz., \$1.00

ODORATA BLUE.—Very fragrant. Pkt., 10c; $\frac{1}{6}$ oz., 50c

ODORATA WHITE.—Very fragrant. Pkt., 10c; $\frac{1}{6}$ oz., 50c

ODORATA.—Finest mixed. Pkt., 10c; $\frac{1}{6}$ oz., 75c

Wall Flower—Cheiranthus Cheri

Produces spikes of beautiful, exceedingly fragrant flowers. Half hardy perennials.

CLOTH OF GOLD.—Large, fine, single. Pkt., 10c; $\frac{1}{4}$ oz., 35c

GOLIATH.—Single, extra large, fine dark brown. very early; fine for forcing. Pkt., 10c; $\frac{1}{4}$ oz., 50c

MIXED, SINGLE.—Large flowering. Pkt., 5c; $\frac{1}{4}$ oz., 25c

PARISIAN FORCING.—Single. Pkt., 10c; $\frac{1}{4}$ oz., 25c

FINEST DOUBLE MIXED.—Branching. Pkt., 10c; $\frac{1}{4}$ oz., 75c

CLASSIFICATION OF FLOWERS

This will enable you to tell at a glance what flowers are suitable for any position.

Annual Bedding Plants or Tall Border Plants
1 to 2 feet

Ageratum.	Tall.....	blue, white or mixed.
Asters.		various colors.
Balsam.		various colors.
Brachycome.		blue, white, rose.
Browallia.		blue and white.
Calendula.		mixed.....
Candytuft.		various colors.
Celosia.		crimson.....
Centaurea.		yellow, rose.
Chrysanthemum.		yellow, white, gold.
Clarkia.		pink, scarlet.
Eschscholtzia (California poppy)		crimson, white, yellow.
Four O'Clock.		various colors.
Gaillardia.		orange, scarlet.
Gilia.		white, lilac, rose.
Godetia.		variegated rose and white.
Gypsophila (for bouquets).		white.
Linum (scarlet flax).		scarlet.
Marigold.		yellow, red, brown and variegated.
Mignonette.		white, yellow, red.
Nasturtium, dwarf.		various colors.
Nigella (Love in a mist)		
Petunia.		various colors.
Poppy.		various colors.
Phlox.		various colors.
Scabiosa.		white, lilac, carmine and maroon.
Schizanthus.		various colors.
Salvia.		scarlet.
Stocks (10 weeks).		all colors.
Viscaria.		various colors.
Zinnia.		various colors.

Everlasting Flowers

Acroclinium.		all colors.
Globe Amaranth, Gomphrena.		various colors.
Helichrysum.		various shades.
Rhodanthe.		pink, white.
Statice.		white, blue and yellow.
Tall Growing Plants for Grouping--Annual		
From 2 1/2 ft. up		
Amaranthus.		scarlet.
Calliopsis.		yellow, brown, maroon.
Castor Bean.		white, red, pink.
Cosmos.		white, red, pink.
Euphorbia.		
Kochia.		various colors.
Larkspur.		various colors.
Nicotiana.		white.
Rudbeckia.		yellow.
Salpiglossis.		various colors.
Scabiosa Grandiflora.		all colors.
Sunflower.		yellow.

Low Edging Plants--Annual

Ageratum Dwarf.		blue, white or mixed.
Alyssum.		white.
Bulbs.		all colors.
Calliopsis, Tiger Star.		reddish brown.
Candytuft.		various colors.
Celosia, Dwarf.		
Centaurea, Dusty Miller.		various colors.
Dianthus.		various colors.
Lobelia Compacta.		blue.
Mignonette.		white, yellow, red.
Nemophila.		blue.
Pansy.		all colors.
Portulaca.		yellow, pink, white, scarlet.
Verbena.		various colors.

Climbing Vines--Annual

Balloon Vine.		white.
Scarlet Runner Bean.		scarlet.
Canary Bird Vine.		yellow.
Cypress Vine.		
Gourds.		
Moonflower.		white.
Morning Glory.		
Nasturtium, Tall.		various colors.
Sweet Peas.		all colors.
Wild Cucumber.		

Bedding Plants--Perennial--1 to 2 ft. high.

Agrostema.		pink.
Aster.		various colors.
Begonia.		various colors.
Calceolaria.		various shades and colors.
Calla.		
Candytuft.		all colors.
Carnation.	yellow, white, red, pink and variegated.	
Cineraria.		various colors.
Coleus.		
Columbine.		yellow, violet, rose.
Daisy (Shasta).		white.
Gaillardia.		yellow, orange, scarlet.
Geum.		scarlet.
Linum.		various colors.
Lychnis.		scarlet.
Pentstemon.		various colors.
Salvia.		scarlet.
Statice.		white, blue, yellow.
Stocks (perpetual).		all colors.
Sweet William.		various colors.
Tritoma.		orange, red.
Vinca.		white, rose.
Wallflower.		various colors.

Low Edging Plants--Perennial, 6 to 12 in. high

Alyssum Saxatile.		yellow.
Anemone.		various colors.
Pinks.		various colors.
Daisy, English.		various colors.
Edelweiss.		
For-get-me-not.		blue.
Oxalis.		yellow, pink, lavender, white.
Poppy, Iceland.		white, orange, yellow.
Primula.		various colors.
Pyrethrum.		various colors.
Viola.		yellow, white and blue.

Tall Growing Shrub Plants--Perennial

For Grouping From 2 1/2 ft. up

Abutilon.		
Anchusa.		blue.
Aster.		various colors.
Canna.		various colors.
Canterbury Bells.		various colors.
Chrysanthemum.		various colors.
Columbine.		yellow, violet, rose.
Dahlia.		all colors.
Delphinium.		various colors.
Digitalis.		
Fuchsia.		scarlet, white, pink.
Geranium.		various colors.
Gladiolus.		various colors.
Goldenrod.		yellow.
Hollyhock.		various colors.
Lantana.		red, white, yellow.
Lavender.		
Lobelia Cardinalis.		scarlet.
Lupin.		shades of blue.
Poppy, Oriental.		various colors.
Phlox, Perennial.		various colors.
Scabiosa.		
Snapdragon, Tall.		various colors.
Wallflower.		various colors.

Climbing Vines--Perennial

Ampelopsis, Boston Ivy and Virginia Creeper.		
Clematis.		white, lavender, red.
Cobea Scandens.		
Kudzu Vine.		violet.

For Rockeries, Hanging Baskets or Window Boxes

Asparagus Fern.		
Edelweiss.		blue.
For-get-me-not.		
Ice Plant.		blue.
Lobelia Trailing.		yellow.
Mimulus.		various colors.
Nasturtium.		
Oxalis.		yellow, white, pink, lavender.
Portulaca.		
Thunbergia.		buff, orange and white.
Verbena.		various colors.
Petunia.		various colors.

PLANTS for immediate effects supplied in season--see Plant Dept.



Garden Tools, Implements, Etc.

Highest Grade

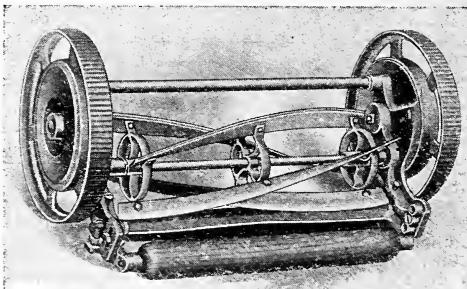
Cycle Lawn Mowers

Fully Guaranteed

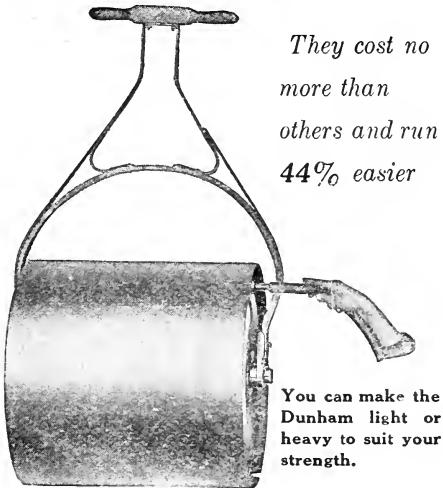
Stationary, draw-cut blade, self sharpening, protected from rocks, nails, etc., keeps the mower close to the turf on uneven ground—cuts all the grass right the first time over.

PRICES AND SIZES

14 in. cut, 8 in. wheel, 4 blades.....	\$5.65
16 in. cut, 8 in. wheel, 4 blades.....	5.95
14 in. cut, 9 in. wheel, 4 blades.....	6.50
16 in. cut, 9 in. wheel, 4 blades.....	6.90
14 in. cut, 10 in. wheel, 4 blades.....	7.50
16 in. cut, 10 in. wheel, 4 blades.....	7.85
18 in. cut, 10 in. wheel, 4 blades.....	8.35
14 in. cut, 11 in. wheel, 5 blades.....	9.75
16 in. cut, 11 in. wheel, 5 blades.....	10.95
18 in. cut, 11 in. wheel, 5 blades.....	12.00



"Cyclemowers" are made of Crucible Steel



DUNHAM'S ROLLER BEARING

Lawn Rollers

The only Lawn Roller with Automobile Roller Bearing Axles

PRICES--F. O. B. PORTLAND

	Sec.	Wgt.		
LR404.....	20x20	2	250	\$18.00
LR407.....	20x24	2	300	21.00
LR410.....	24x24	2	450	27.00

One and Two Section "Water-Weight" Rollers

These can be filled with water or sand, and when empty are easily transported, adjusting the weight to suit.

	Sec.	Empty	Water	Sand	
WB5...18x24	1	75	300	500	\$14.00
WB7...24x24	1	125	500	800	18.00
WB11...18x24	2	100	300	500	19.00
WB13...24x32	2	170	650	1000	25.00
WB15...24x24	2	145	500	800	22.00

Miscellaneous Florists' and Nurserymen's Supplies

PLANT STAKES.—Round cedar, painted green, white tops.

3 ft., 80c doz.; 3 1/2 ft., 85c; 4 ft., \$1.00; 5 ft., \$1.50; 6 ft., \$2.25.

PENCILS.—Indelible, nickel tip, for marking labels. **Each, 15c**

OREGON MOSS.—We have this gathered, dried and put up in bales of about 100 lbs. each for florists' and nurserymen's use. Write for price by ton or carload. **Per lb., 5c; 100 lbs., \$3.00**

WIRE DESIGNS.—Every description. List on **WIRE HANGING BASKETS.**— [request.

8 in., 20c; 10 in., 25c; 12 in., 30c; 14 in., 50c

MASTICA—For Glazing New or Old Greenhouses.—One gallon will cover about 290 running feet (one side). Weight, 17 lbs. pkd.

Per gallon, \$1.50

MASTICA GLAZING MACHINE.—Weight, 2 lbs.

Price, \$1.50

Vitaplastic-Glazing Compound.—The best, most dependable glazing material. Never hardens or cracks. A gallon covers 400 lineal feet. Write for circular.

Price, gal., \$2.00; 5 gal., \$9.50; 30 gal., \$52.50

Wooden Labels

TREE LABELS.—Painted iron wire.

Per 100, 15c; per 1,000, \$1.50.

Unpainted iron wire. Per 100, 15c; per 1,000, \$1.30

Painted copper wire. Per 100, 20c; per 1,000, \$1.75

Unpainted copper wire. Weight pkd., 4 lbs. per 1,000. **Per 100, 20c; per 1,000, \$1.50**

POT LABELS.—

4-inch. Plain, per 100, 15c; 1,000, 95c

Painted, 1,000, \$1.20. Wt. pkd., 4 lbs. per 1,000.

5-inch. Plain, per 100, 20c; 1,000, \$1.20

Painted, 1,000, \$1.45. Wt. pkd., 6 lbs. per 1,000.

6-inch. Plain, per 100, 20c; 1,000, \$1.65

Painted, 1,000, \$2.00. Wt. pkd., 9 lbs. per 1,000.

8-inch. Plain, per 100, 30c; 1,000, \$2.15

Painted, 1,000, \$2.60. Wt. pkd., 11 lbs. per 1,000.

TIN FOIL—Florist.—Regular stock. **Per lb., 16c**

GLAZING POINTS—Peerless.—Best point made.

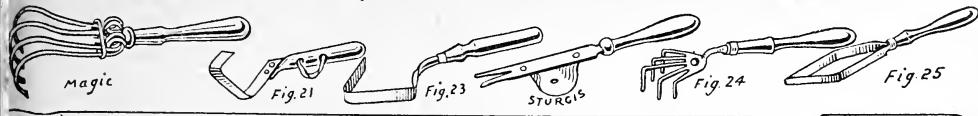
No raising up when driven—no rights, no lefts, no sliding, no trouble to apply; cheap, indestructible. Once used always used. 1,000 in box. Wt., 2 lbs. **Price, 75c**

PUTTY BULBS.—Mailing weight, 1 lb.

Price, each, \$1.25

Add postage at zone rate if ordering by mail

GARDEN TOOLS, IMPLEMENTS, ETC.—Continued



Halls Dandelion Puller

Norcross Adjustable Cultivator-Hoe

Detachable clamp to use on
Wheel hoe, 10c
extra.

Like a human hand, the fingers of the "Norcross" work closely around the plants without injury. Keeps down weeds, saves moisture, leaves the ground level.

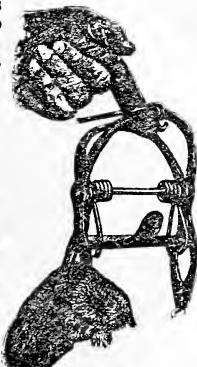
Prices:

FIVE PRONG for regular garden work; 4-ft. handle, weight 4 lbs., \$1.00
THREE PRONG lighter in weight, for narrow rows and close work, 4-ft. handle, weight 3 lbs., 75c
MIDGET , 3 prong, 9-in. handle for flowers or close hand work, weight 1 lb., each 35c

Reddick Mole Trap
No Mole Can Pass Under It and Live.

These traps are strong and durable and worth the price to anyone troubled by moles. Full directions with each trap (See cut.) Weight 3 lbs. Price, 85c

REDDICK MOLETRAP



OUT O'SIGHT MOLE TRAP

Out O'Sight Mole Trap

One of the best. Sure to "get them."

Weight 2 lbs., Price, 85c

Gopher Trap

California Box.—Similar to "Out O'Sight," except this trap has sides boxed up; never fails. Weight, 1 lb. Price, each, 25c

Whitney Rodent Torch

WHITNEY RODENT TORCH.—Exploded in the runway, the poisonous gases penetrate all parts and suffocate the animal—especially effective against moles—express or freight (cannot be mailed); pkg. of 25, weight, 1 lb. Price, 60c

Five of the Best Hand Weeders

Magic Weeders. Made of best quality hard steel wire, an ideal tool for fining the surface soil. We offer four sizes, illustrated above:

Magic No. 0 , 3 tines, short handle, wt. 1 lb.	15c
Magic No. 1 , 4 tines, short handle, wt. 1 lb.	25c
Magic No. 4 , long handle, 4 tines	50c
Magic No. 5 , long handle, 4 tines, heavy wire, wt. 3 lbs.	60c
Fig. 21. Lang's. Weight, 1 lb.	25c
Fig. 23. Hazeltine's. Weight, 1 lb.	30c
Fig. 24. Excisor. Weight, 1 lb.	20c
Fig. 25. Noyes'. Weight, 1 lb.	25c

Dandelion Pullers

Sturgis (see cut). A most convenient tool for digging these troublesome weeds. Wt. 1 lb. Each **35c**

Halls (see cut). Pulls the root without tearing up the lawn; long handle; polished steel blade. Weight, 2 lbs. Price. **50c**

Erado. Cuts the top and injects Gasoline or Weed Killer into the root by a single motion of the handle—a well-made, efficient tool at a very low price. Weight, 1½ lbs. Price, **75c**



No. 212 No. 211 No. 213 No. 217

Garden Trowels

See descriptions of numbers on cuts.

Don't class these tools with the cheap stock offered by the department stores. (See cut.)

No. 213. Six inch; good steel trowel, with malleable iron shank, firmly riveted. Wt., 1 lb. **15c**

No. 217. Six inch; steel transplanting trowel. Weight, 1 lb. **20c**

No. 217. Eight inch; steel transplanting trowel. Weight, 1 lb. **25c**

No. 217A. Transplanting hoe trowel, used by gardeners in setting out plants. Wt., 1 lb. **50c**

No. 216. Ladies' flower trowel. Wt., 1 lb. **10c**

No. 216A. Special Bulb Trowel. Wt., 1 lb. **75c**

No. 85. Maynard; long handle. **60c**

Wood-lark

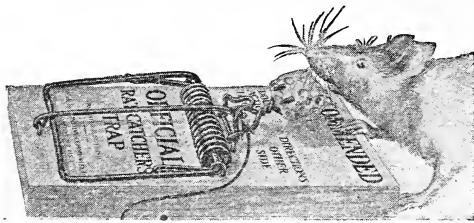
SQUIRREL AND GOPHER POISON

Guaranteed to exterminate Squirrels, Sage Rats, Pocket Gophers, Field Mice, Prairie Dogs, Crows. Should be used early in the season when green food is scarce.

Price, **1 lb. package, 35c**

Add postage at zone rate if ordering by mail

GARDEN TOOLS, IMPLEMENTS, ETC.—Continued



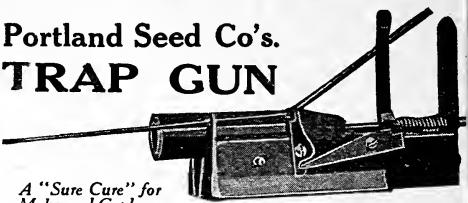
The Official Rat Trap

The Government selected this trap from among thousands of models submitted. Spring releases with either upward or downward pressure—**Rats Nibble Upward.** The "Official" always gets them.

Official Rat Trap, weight 1 lb., Each 20c

Official Mouse Trap, weight 4 oz., Each, 5c

Portland Seed Co's. TRAP GUN



*A "Sure Cure" for
Moles and Gophers.*

Breech loader, 16 gauge; can be set for coyote coons, hawks, etc., and is the most effective way of getting moles and gophers. Safe, simple, durable. Weight, 4 lbs.

PRICE: Postpaid to any address, \$1.75

COYOTE GUNS

Mr. Chas. H. Davidson writes:—Those 3 Coyote guns are all O. K. I got 9 Coyotes, 1 Fox, 2 Bob Cats, 1 Cougar 3 Dogs and gadd only knows how many Magpies that go blowed to atoms by pecking the baits on these guns.

KNIVES

Will send any of the following knives postpaid at these prices. See numbers on cut.

Budding Knives

Prices Postpaid

No. 8. Ebony handle, stationary ivory bark opener. **Price, \$1.00**

No. 8 1/2. Same as above, only size larger. **Price, \$1.25**

No. 12. Brown handle; very light and fine. **Price, 85c**

No. 13. Plain wood handle, stationary blade. **Price, 25c**

No. 5. Budding and pruning knife combined. **Price, \$1.00**



Pruning Knives

Note.—See numbers in descriptions.

No. 2. Plain wood handle, stationary blade. **Price, 65c**

No. 3. Large horn handle, very strong. **Price, \$1.75**

No. 4. Polished wood handle. **Price, 80c**

BARNETT FRUIT PICKING PAIL

Built for Service

Galv. Iron with strong canvas open bottom.

A great labor saver.
Wt. 3 1/2 lbs.

Price, each, \$1.75



NORTHWEST FRUIT PICKING LADDER

6, 8, 10 and 12 ft. lengths. Strong, light and serviceable.

Price, 40c per foot.



Grafting Knives

No. 6. Plain wood handle, stationary blade. **Price, 35c**

No. 7. Plain wood handle, stationary blade; smaller. **Price, 25c**

No. 9. Special Henckels Grafting Knife—has extra heavy brass lining, brass rivets, blade set deep in handle, giving great strength. **Price, each, \$1**

Grafting Wax

Lion Brand.— $\frac{1}{4}$ lb., 10c; $\frac{1}{2}$ lb., 20c; lb., 35c

Add postage at zone rate.

Raffia

For tying plants and buds. **Lb., 30c**

For colored Raffia, See Page 64.

Pruning Saws

Add 10c Each for Postage.

Crescent, 12-inch blade 75c

Crescent, 14-inch blade 85c

Straight blade, 16-inch 80c

Straight blade, 18-inch 85c

Straight blade, 20-inch 90c

Corn Knife

Best style broad tapered blade. Length, including handle, 22 1/2 in. Wt., packed, 2 lbs. **Price, 50c**

Grass Hooks or Sickles
These are the latest style and shape.

Village Blacksmith.—Hand forged, weight, 1 lb. **Price, 65c**

King of Grass.—No. 1065. Wt. 1 lb. **25c**

Grass Shears

Fine for trimming borders and edges; 6-in. blade.

"Razor Edge."—No. 1162. 1 lb. **50c**

Village Blacksmith.—No. V 51. 1 lb. **\$1.00**

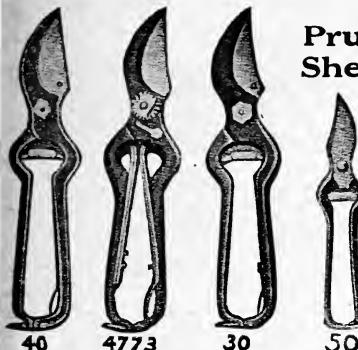
FLORISTS

We carry a large stock of up-to-date Supplies—the very best lines—and your orders or inquiries will have prompt attention. We can save

you money and give you prompt service. WRITE OR WIRE.

Garden Tools, Implements, Etc.—Continued

NOTE—Compare numbers on cut to those in descriptions.



Pruning Shears

New--BASTIAN PRUNER

MAKES A CLEAN, SHARP CUT

THE POWERFUL LEVER of the new Bastian Pruner enables you to do the same work in half the time and with half the labor that would be required with old-style Pruners.

The Blades are of finished Damascus steel, are very strong, and hold their cutting edge.

Simple in construction, light, strong and durable. We recommend the Bastian to every fruit grower.

Prices f. o. b. Portland:

6-foot, \$1.00	12-foot, \$1.50
8-foot, 1.15	14-foot, 1.75
10-foot, 1.25	16-foot, 2.00

FOR WOOLLY APHIS

Use SCALECIDE

Ask for Special Booklet
FREE

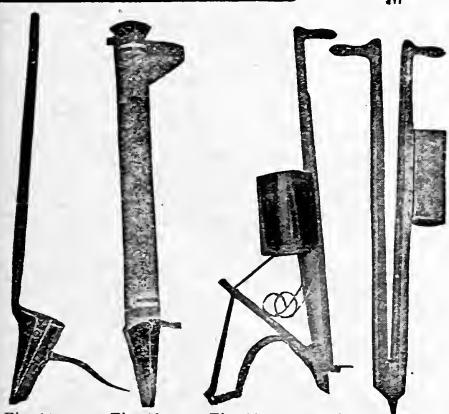


Fig. 14

Fig. 16

Fig. 20

Fig. 22

Corn Planters

GORDON AUTOMATIC—One hand. (Fig. 20.) Puts the right number of kernels just where you want them, and at the proper depth. Is light, easily worked, requiring only one hand, either right or left. Is strong and durable. Wt. pckd., 6 lbs. Price, \$1.95

ACME. (Fig. 22) A two-hand planter. Light, well made, and especially adapted to heavy, cloddy or stony soils. Adjustable—from pop corn to large kidney beans. Has strong brass cut-off and steel blades. Wt. pckd., 4 lbs. Price, \$1.00

No. 4773. 9-inch; full polish, with double brass springs; best American make. Wt. 1 lb. Price, \$1.65

No. 40. 9-inch; bright finished, polished blade, spiral steel spring; made for hard service. Weight, 1 lb. Price, \$1.00

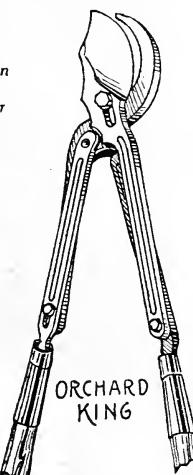
No. 41. Same as No. 40, except with ratchet nut. Weight, 1 lb. Price, \$1.25

No. 30. 7-inch; German make; black finish; polished blade; very good. Weight, 1 lb. Price, 75c

No. 31. Same as No. 30, only 9-inch ratchet nut; an American make. Wt., 1 lb. Price, \$1.00

No. 50. Five and a half-inch, nickel-plated; small, but of best material; fine for ladies. Weight, 1 lb. Price, \$1.00

No. 51. Same as No. 50, except that it is 6½ inches long. Weight 1 lb. Price, \$1.25

New
Bastian
Tree
Prunerbranches easy work.
handles. Weight, 5 lbs.

Branch Shears

Fig. 126. This has no equal in its class; is forged from high-grade tool steel; finely tempered, solid wrought steel ferrules. Patent lock nut. Cannot work loose and ruin shears. 26-inch handle. Weight, 4 lbs. Price, \$1.75

Fig. 35. Standard pattern. Satisfactory for light work; a good value.

26-inch handle, weight 2½ lbs., 75c; 41-inch handle, wt. 3 lbs., 90c.

Orchard King

Improved Branch Shears

The "Orchard King" is made of the finest material, has heavy ferrules and the powerful compound lever makes cutting of heavy

Thirty-six-inch hardwood

Price, \$3.00

Hand Planters

Potato Planters

PEERLESS. Tubular. (Fig. 16.)

This light tubular planter locks itself as it is lifted out of the ground and the next potato may be dropped in at once. Opens automatically by forward movement. Wt. pckd., 5 lbs. Price, \$1.50

PINGREE or ACME. (Fig. 14.)

Similar in action to the tubular. You lift the planter up to drop in the potato. A strong, light and serviceable planter. Wt. pckd., 4 lbs. Price, \$1.00

Masters Plant Setter

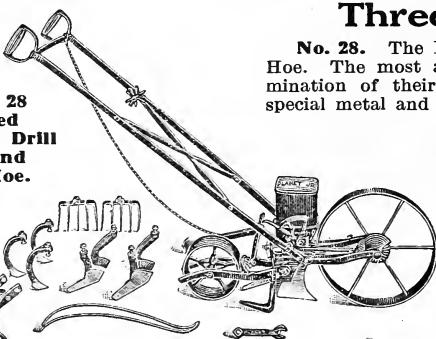
With a "Masters" you can set, water and fertilize 10,000 plants a day and do better work and your plants will make a more thrifty growth than if set by hand. Sets the plant firm, puts the water in the right place, works as fast as you walk. Sets cabbage, kale, celery, tomatoes and vegetable plants of all kinds. Wt. pckd., 5 lbs. Price, each, \$4.25



Planet Jr. Garden Tools

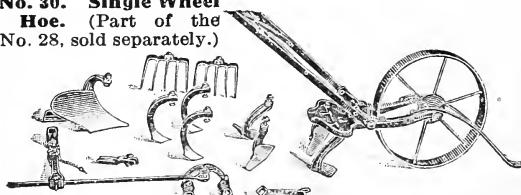
FOR over 40 years Planet Jr. Garden Tools have stood the test of world-wide usage, and are recognized in every known country as the highest type of garden implement. In Europe, where labor is cheapest, Planet Jrs. are in constant use. How, then, can you afford to be without them where labor is both high and scarce? We cannot tell you all about Planet Jrs. in this catalog, but will send you the beautiful 72-page Planet Jr. book on request.

Being general selling agents for Planet Jr. implements, our stocks are large and orders will have prompt attention. State your requirements. We will advise the correct tool.

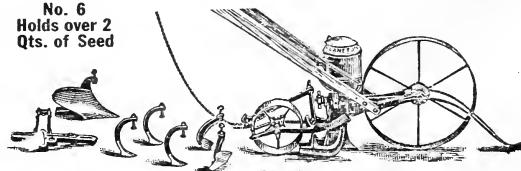


New No. 28
Combined
Hill and Drill
Seeder and
Wheel Hoe.

No. 30. Single Wheel
Hoe. (Part of the
No. 28, sold separately.)

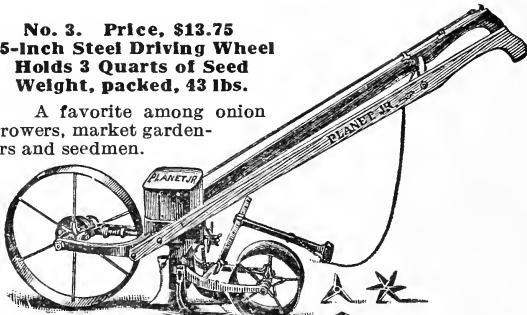


No. 6
Holds over 2
Qts. of Seed



No. 3. Price, \$13.75
15-inch Steel Driving Wheel
Holds 3 Quarts of Seed
Weight, packed, 43 lbs.

A favorite among onion growers, market gardeners and seedmen.



No. 3 Planet Jr. Hill and Drill Seeder.

The special force feed is admirable, working equally well whether sowing with an ounce or a full hopper.

Three New PLANET JRS.

No. 28. The New Combined Hill and Drill Seeder and Wheel Hoe. The most accurate and perfect of all Planet Jrs.; the culmination of their 40 years' experience. Seeding device is of a special metal and the improved method of delivery gives a narrow straight and even row that can be cultivated easily with the wheel hoe. The control enables you to make the most perfect and finest adjustment for feeding. See Planet Jr. Catalog.

Packed, wt. 71 lbs. Price.....\$18.00

No. 29. This is the Hill and Drill Seeder only; the No. 28 without cultivating attachments. Packed, wt. 57 lbs. Price.....\$15.00

No. 30. The New Single Wheel Hoe. Part of the No. 28 combined seeder and wheel hoe. Complete with attachments as illustrated. Weight packed 42 lbs. Price.....\$9.00

No. 6 Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow

What It Will Do.—It drops all garden seeds in hills and sows in drills, with the greatest regularity, in a narrow line, to any exact depth required, covers, rolls down and marks the next row, all at one passage. As a wheel hoe, it hoes, cultivates and plows all garden crops, completing a row at every passage, up to 16 inches in width. **Price, Complete, \$18.50.** **Weight, packed, 64 lbs.** **As a Seeder Only, \$15.25.** **As a Wheel Hoe Only (No. 36), \$8.50.**

No. 4 Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow

This tool combines in a single convenient implement a capital hill-dropping seeder, a continuous row-seeder, single wheel hoe cultivator and garden plow. **No. 4, Price, Complete, \$14.50.** **Weight, 53 lbs.** **As a Seeder Only, \$12.00.** **Holds 2 1/2 Quarts of Seed.**

No. 25 Planet Jr. Combined Hill and Drill Seeder and Double Wheel Hoe, Cultivator and Plow. For Market Gardeners, larger capacity than No. 4. Steel Frame. **Holds 2 1/2 Quarts of Seed.**

Price, \$17.50. **Weight, packed, 59 lbs.**

No. 5 Planet Jr. Hill and Drill Seeder

16 1/4-inch steel wheel. Sheet steel hopper holding 5 quarts. Built on the same lines as No. 3 Drill, only larger.

Price, \$16.75. **Weight, packed, 52 lbs.**

No. 2 Planet Jr. Drill Seeder

It is similar to No. 1 Planet Jr., Combined Drill, but larger, holding twice as much seed, and having higher wheels and larger roller. Has no cultivating attachment.

Price, \$10.25. **Holds 3 Quarts.**
Weight, packed, 41 lbs.

Planet Jr. Garden Tools

No. 1 Planet Jr. Combined Drill Seeder, Wheel Hoe, Cultivator and Plow



Price, with Tools as shown, \$12.75. Holds 3 Pints of Seed. Weight, packed, 44 lbs.

Planet Jr. Single Wheel Hoes

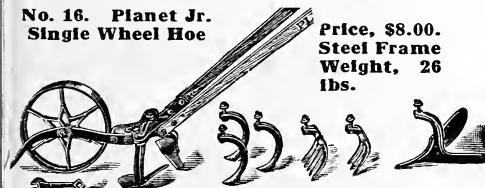
The handles are adjustable in height. The frame is steel, convenient and strong, with quick change device by which to exchange the tools without removing the nuts.

Nos. 16, 17, 17 1/2 and 18 wheels, frames and handles are alike, but the attachments sold with each vary.

The hoes are the most valuable of all the wheel hoe attachments; are oil tempered and polished. Use the 4-inch for 6, 10 or 12-inch rows; the 6-inch or rows 12 inches and upwards.

No. 16. Planet Jr. Single Wheel Hoe

Price, \$8.00.
Steel Frame
Weight, 26
lbs.



No. 16 Planet Jr. Single Wheel Hoe, Cultivator, Rake and Plow

The No. 16 has 15-inch steel wheel, steel frame, one pair of 6-inch hoes, three cultivator teeth, one large garden plow, a 4 and a 7-inch rake, one leaf guard. The plow hoes and cultivator teeth are oil tempered. This complete equipment is suitable for every requirement and the Planet Jr. Wheel hoes for 1916 rank as the highest type of their class.

Price, \$8.00. Weight, 26 lbs.

The sowing cylinder is a drum of spring brass set between the driving wheels, with a sliding brass band and cam. In drum and band are corresponding diamond shaped discharge openings, quickly adjusted for any kind of seed. Inside the drum, shields cover the openings, and insure regular sowing with a full hopper or a thimbleful.

The Plows are invaluable; use them with points together for opening furrows for manure, seed, etc.; then exchange sides for covering; use them also for plowing away from or toward the crop, both sides at once.

The cultivating teeth for deep or shallow work, and for marking out.

Leaf lifters save time and enable fine work to be done close to the row without additional labor, when plants are large or leaves are flat on the ground.

No. 17 Planet Jr. Single Wheel Hoe

You can do more and better hoeing with it in one day than you can do in three days with a hand hoe. The No. 17 has a pair of 6-inch hoes, a plow and a set of cultivator teeth, an outfit sufficient for most garden work. Price, \$7.00. Wt., 23 lbs.

No. 17 1/2 Planet Jr. Single Wheel Hoe

This tool is identical with No. 16, except in equipment. The pair of 6-inch hoes, three cultivator teeth and leaf lifter which go with it, are all the finest of their kind. Price, \$6.25. Wt., 21 lbs.

No. 18 Single Wheel Hoe

This tool has one pair of 6-inch hoes only—the tools that are constantly useful throughout the season. Other tools can be added as needed.

Price, \$5.30. Weight, 20 lbs.

No. 38 Planet Jr. Single Wheel Disc Hoe, Cultivator and Plow

This combination occupies the same position among Single Wheel Hoes as that taken by No. 14 Planet Jr. Double Wheel Disc Hoe among Doubles. Price, complete, \$9.50. Weight, packed, 28 lbs.

Planet Jr. Double Wheel Hoes

No. 11 Planet Jr. Double Wheel Hoe, Cultivator, Plow and Rake



No. 12 Double Wheel Hoe, Cultivator and Plow

This tool is identical with No. 11 Wheel Hoe, except that it has one pair plows, one pair hoes and two pair cultivator teeth only, and is sold at a correspondingly less price. Price, \$10.00. Wt., 34 lbs.

The No. 11 is considered the best combined Double and Single Wheel Hoe made, having the largest assortment of useful tools and the frame being adjustable for any depth work. The attachments and their position can be changed in a few seconds. All edge tools are oil tempered—see attachments illustrated—can be used in narrow rows as a single wheel hoe—as a double wheel hoe the arch will straddle plants 20 inches high.

Weight, packed, 39 lbs. Price, with Attachments as in cut, \$12.25.

No. 13 Double Wheel Hoe

This tool is the No. 11, with 6-inch hoes, only, these being the tools that are most generally used. Any or all of the other tools shown with No. 11 may be added at any time.

Price, \$7.00. Weight, 29 lbs.

Planet Jr. Garden Tools

DOUBLE WHEEL HOES—Continued

No. 14 Planet Jr. Double Wheel Disc Hoe, Cultivator and Plow

This new tool will give excellent satisfaction; is especially pleasing to all who work peat lands. There are three oil tempered adjustable discs on each side. The frame is steel.

The set of prong cultivator teeth are constructed on entirely new lines, and will be found invaluable in general cultivation.

The plows are the regular Planet, Jr., mold and are continually valuable for furrowing, covering and plowing.

Price, with Attachments, as in cut, \$11.00.

**No. 14.
Steel Frame.
Weight, 38 lbs.**



The Three Prong Cultivators are adjusted to run deeper with the outside tooth protecting the plant roots and giving thorough tillage.

Attachments for Wheel Hoes

PEAT LAND HOES.—Weight 5 $\frac{1}{2}$ lbs per pair.
Per pair, \$2.20

DISC HOES.—Weight 5 $\frac{1}{2}$ lbs. per pair.
Per pair, \$3.40

6-INCH HOES.—Complete. Weight 2 $\frac{1}{4}$ lbs. per pair.
Per pair, \$1.40

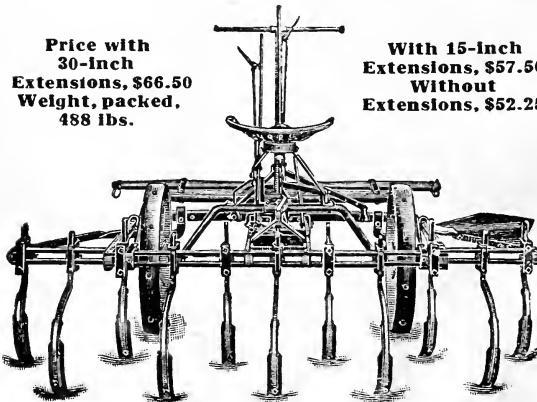
4 1/2-INCH HOES.—Complete. Weight 2 lbs. per pair.
Per pair, \$1.20

3 PRONG CULTIVATOR TEETH.—Weight 2 $\frac{1}{2}$ lbs. per pair.
Per pair, \$2.00

8-INCH ONION HARVESTER.—Weight 1 $\frac{1}{2}$ lbs.
\$1.50

PLANET JR. HORSE HOES AND CULTIVATORS

**Price with
30-Inch
Extensions, \$66.50
Weight, packed,
488 lbs.**



**With 15-inch
Extensions, \$57.50
Without
Extensions, \$52.25**

**No. 41 Planet Jr. Orchard and Universal
Cultivator**

The steel wheels are low and entirely enclosed by the frame. The tongue is steel.

The frame is high carbon steel, compact in form, well braced, heavy and strong.

Without the extension, it cuts 4 feet in width, having seven stiff steel standards, carrying 2 $\frac{1}{4}$ x 10-inch teeth.

With the extension, it cuts 6 feet 6 inches, carrying eleven teeth, and the frame can be changed to cut any width from 6 $\frac{1}{2}$ down to 4 feet.

Disc Harrow Attachment. We sell as an attachment to No. 41 a set of five pairs of discs, making a capital disc harrow.

BARGAINS

Planet Jr. Pivot Wheel and Riding Cultivators

To reduce our stock we will offer these Famous "Planet Jr." Orchard and Riding Cultivators until sold at the following special prices—Less than Cost to us.

No. 70 Planet Jr. Pivot Wheel Riding Cultivator, Plow, Furrower and Ridger. Regular price \$50.00.
Special price, complete, \$32.50.

No. 72 Planet Jr. Two-row Pivot Wheel Riding Cultivator, Plow, Furrower and Ridger. Regular price \$52.50.
Special price, \$37.50.

No. 45 Planet Jr. Riding Harrow and Cultivator, complete with extensions. Regular price \$53.00.
Special price, complete, \$38.00.

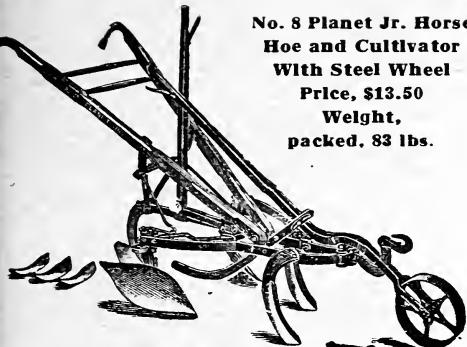
You Must Order Early—They Will Not Last Long At These Prices

The NEW "PLANET JR." Catalog is the handsomest, best, and most instructive book ever issued on a similar subject. Full of little points that bring profit. Full of true and handsome illustrations. We mail it free to any address on application.

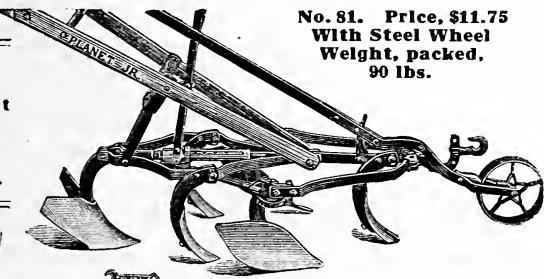
Planet Jr. Garden Tools



No. 8 Planet Jr. Horse Hoe and Cultivator With Steel Wheel
Price, \$13.50
Weight, packed, 83 lbs.



No. 81. Price, \$11.75 With Steel Wheel
Weight, packed, 90 lbs.



No. 81 Planet Jr. Horse Hoe, Cultivator and Hiller Combined

This is the latest and best tool of the kind. Has six 3-inch cultivator teeth, two 6-inch side plows, and a 12-inch furrowing tooth, making an admirable equipment for all widths of cultivation and for hillng crops up to four feet apart.

It has a cultivator tooth central in front, which increases the steadiness of the tool.

Planet Jr. No. 90 Twelve-Tooth Harrow, Cultivator and Pulverizer

With the Twelve-Tooth Harrow you go as deep or shallow as you like, come up close to row without injuring plants, cut out all the weeds, stir the soil and mellow and fine it as with a garden rake. You widen and narrow as you please between 12 and 32 inches. It's a special favorite with strawberry growers, market gardeners and truckers.

A strawberry runner cutter consisting of a 10-inch flat steel disc mounted on an outrigger.

Price, extra, \$2.75

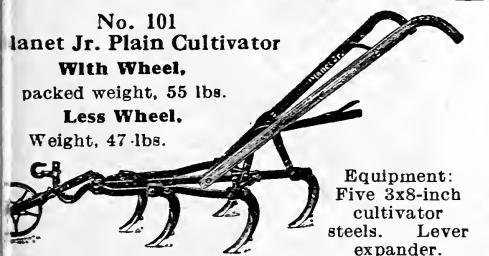
**No. 101
Planet Jr. Plain Cultivator**

With Wheel,
packed weight, 55 lbs.

Less Wheel,

Weight, 47 lbs.

Equipment:
Five 3x8-inch
cultivator
steels. Lever
expander.



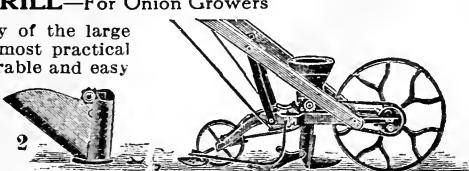
The New No. 101 Cultivator

This machine is the "latest word" in design. The lever, instead of standing perpendicular, slants backward between the handles, free from danger of being bent or broken, and prevents injury to crops under cultivation. While the design is one of simplicity, it is very strong and most accurate in its work, and the tool has so few parts that there is no danger of its ever getting out of order.

Price, with wheel, \$8.25; without wheel, \$7.25.

IRON KING SEED DRILL—For Onion Growers

The Iron King Seed Drill is considered by many of the large onion growers of Oregon and Washington to be the most practical drill for sowing onion seed. It is a well made, durable and easy inning machine, accurate and reliable, and with treful use will last a lifetime. It will save the rice of the machine in sowing a few acres. If you se growing onions you cannot afford to be without ie. The Iron King can also be set to sow anything from turnips to peas. Price, \$9.25. Weight Packed 58 lbs.

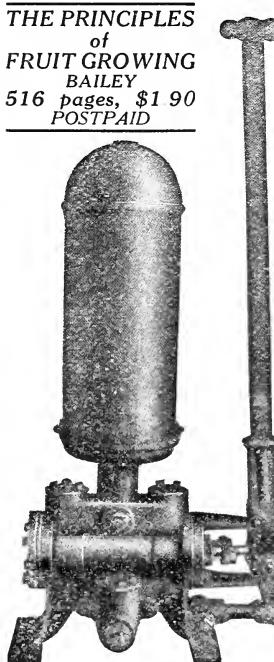


GOULD'S SPRAY PUMPS

We are General Agents for the Gould Sprayers, guaranteed to be the best built, most lasting, and of the highest efficiency. They are the recognized standard.

Every grower of fruit, berries, or flowers should have a good spray pump of some kind, one suited to the work that is to be done. If you want to get the best results, you must spray and spray often. Remember, a person derives the same satisfaction from using a good spray pump that he does from using a good article of any other kind; so when you buy, get one of the following up-to-date and reliable outfits

**THE PRINCIPLES
of
FRUIT GROWING**
BAILEY
516 pages, \$1.90
POSTPAID



ADMIRAL (Fig. 1608).

Gould's "ADMIRAL" Double Acting Sprayer

For Large Orchards, Parks, Groves, Etc.,--Very Powerful.

The "Admiral" is double acting and produces a steady stream at the nozzle, is built for continuous hard work and high pressure. Especially designed for large orchards, and will meet every requirement. The brass cylinder lining is of heavy seamless tubing, with a cast bronze cylinder head, and can be easily removed, as shown in the engraving. This is an important feature, as the gritty nature of many of the spray mixtures has a tendency to cut the cylinder lining, and when it is badly worn it can be replaced at small cost. The valves are all brass, and each one in a separate valve box. They are easily reached by removing the bronze valve box covers. The brass piston rod is outside guided, making a perfectly straight thrust through the stuffing box, which is outside packed.

The removable malleable iron lever is long and powerful, and with the large air chamber a high pressure can be easily maintained. Suction can be taken from either side of the pump, and there are two discharge openings fitted for $\frac{1}{2}$ -inch hose. When ordered without hose or nozzle, both discharges have half couplings for $\frac{1}{2}$ -inch hose and a brass strainer.

This Sprayer is of sufficient capacity to supply, if necessary, four leads of hose, or two leads, each with two, three or four nozzles, and will be found fully as serviceable as a power sprayer for orchards not large enough to warrant the purchase of a power outfit.

This same pump fitted with a pitman in place of lever for connection to gasoline engine.

Outfit A.—Pump only, with strainer and suction hose coupling \$30.00

Outfit B.—Pump with 8 feet suction hose and strainer 32.75

Outfit C.—Pump with 8 feet suction hose, two 25-foot leads best $\frac{1}{2}$ -inch hose, two 8-foot bamboo extensions, with Globe valves and nozzles 40.00

ADMIRAL PUMP with 3-inch cylinder furnished on any of above outfits for \$3.00 extra. **For pressure gauge, add \$1.50**

PITMAN to connect Admiral for power. **Extra, \$1.25**

POWER OUTFITS

We assemble outfits in any manner desired by customer, and suggest the right attachments for special purposes. Attaching any standard engine specified. Write us your requirements. We can save you money and guarantee a satisfactory equipment.

SCALECIDE

Spreads and Penetrates

Safe, Efficient, Economical

**Will not Injure Your Face
or Equipment**

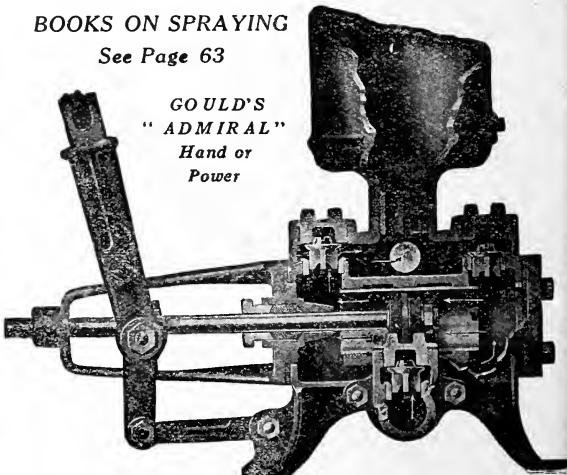
 Apples from trees sprayed with "SCALECIDE" took all the first prizes at the Pennsylvania Horticultural Society Meeting; all the first prizes both this year and last at the New Jersey Horticultural Society Meeting; a long list of sweepstakes and first prizes at the New England Fruit Show in Boston; also first prize at the Ohio State Fair, Connecticut State Fair at Hartford, and Pomological Society Meeting at Berlin, Conn., and a Gold Medal was awarded Scalecide at the National Horticultural Congress, Council Bluffs, Iowa.

**FREE SAMPLE and Interesting
Information on Request**

BOOKS ON SPRAYING

See Page 63

**GOULD'S
"ADMIRAL"
Hand or
Power**

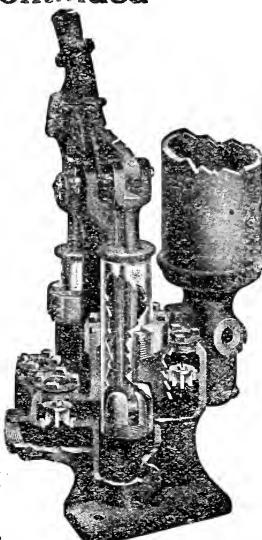


SPRAY PUMPS AND SPRAYERS—Continued

Monarch Two-Cylinder Spray Pump

Fig. 1506.—Monarch.—This pump has many advantages, and we believe it is the best of the large pumps. The main advantages are: First, the long lever, which can be shifted to pull or push, or to lift or drop, and can be changed by the operator any time he desires a relief; second, pump stands outside of the barrel, and all parts can be easily looked after; third, cylinders are perpendicular, and any grit will not lie against the plunger, to wear it or the packing out, as in the case with the horizontal cylinders; fourth, there are no valves in the plungers; the packing is on the outside, and can be tightened any time, without taking anything to pieces; fifth, the four brass valves (each one by itself and under a separate cap), can be reached by merely unscrewing the cap, and without disturbing the rest of the pump.

Outfit A, pump only, including strainer and hose connection	\$24.25
Outfit B, coupled with 6 feet $\frac{3}{4}$-inch suction hose	26.00
Outfit C, pump, suction hose, 25 feet best $\frac{1}{2}$-inch spray hose	
8-foot bamboo extension, Globe valve and nozzle	33.00
For pressure gauge, add \$2.00.	



Take Care of Your Sprayer

Always empty remaining solution, and pump through some clean water after using. Clean thoroughly before putting away at end of season.

Never leave sprayers containing liquid where they will freeze; if the cylinders are iron they are apt to crack and if brass they will expand.

Spreads and Penetrates

An inexperienced or careless man can do a thorough job with **Scalecide** where he would fail to get a good distribution with Lime and Sulphur. **Page 99.**

Fig. 1500. **MONARCH**

We recommend the use of a pressure gauge on all large pumps, as it accurately tells the force of spray when delivered.

Gould's Pomona—Our Leading Barrel Pump

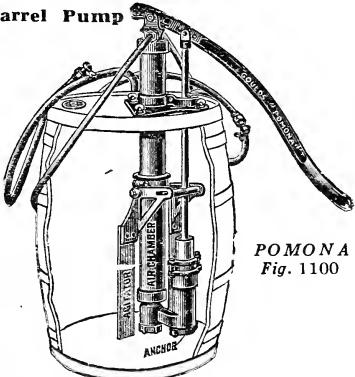
Fig. 1100.—"Pomona" Spray Pump has won for itself an enviable reputation. We unhesitatingly offer it as the best orchard spray pump for mounting in a barrel. It has great power and capacity. Briefly stated, other points of superiority are: No. leather packings, consequently no hardened and useless valves. All working parts bronze, including plunger, gland, valves, valve seats, etc. Plunger is outside packed. Valves are easily accessible. Air chamber is very large and of steel, free from imperfections of cast iron. Lever long and powerful, with adjustable stroke, three, four or five inches. The agitator, as shown in the cut, is operated by the stroke of the handle, so whenever any liquid is pumped it is thoroughly agitated. Pump is held securely by small anchor located at bottom of barrel, and by adjustable clamp plate at the top. New plate admits insertion or withdrawal from barrel without removing the agitator.

Outfit A.—Pump only **\$15.00**

Outfit B.—Pump with 12 $\frac{1}{2}$ feet $\frac{1}{2}$ -inch best 5-ply spray hose, one Vermorel nozzle, one 8-foot bamboo extension, with cut-off, all complete **19.25**

Outfit C.—Same as Outfit B, except we furnish a good hard wood barrel and mount the outfit **21.75**

Outfit D.—This is our regular Pomona outfit, the best barrel pump outfit that can be bought. It consists of one No. 1100 pump, with two 12 $\frac{1}{2}$ -foot leads of best 5-ply spray hose, two Vermorel or Seneca nozzles, two 8-foot bamboo extensions, with cut-off; all in working order and mounted in barrel **25.00**



POMONA
Fig. 1100



FRUITALL
Fig. 1188

Fig. 1188.—"Fruitall" Spray Pump is made on the same general lines as our famous "Pomona." It is, however, made lighter and of smaller capacity. All working parts, including plunger, gland, valves, valve seats and strainer are made of brass. Pump is held in barrel by anchor at bottom and adjustable clamp at top, fitting over end of stave. Not made for side of barrel.

Outfit A.—Pump only **\$11.00**

Outfit B.—Pump with 15 feet of 4-ply spray hose and one Vermorel nozzle, all complete **14.00**

Outfit C.—Pump mounted in barrel, 15 feet 4-ply hose, 8-ft. bamboo nozzle and cut-off, all complete **17.75**

NOTE.—Extra spray hose at 12 $\frac{1}{2}$ cents per foot.



SPRAY PUMPS AND SPRAYERS—Continued

Gould's Standard Sprayer

Powerful, Large Capacity, Durable.

The "Standard" Sprayer is made with a 2 $\frac{1}{2}$ -inch cylinder. The cylinder is brass-lined, the plunger brass-encased and the valves are brass, making all working parts proof against the spraying mixtures. The plunger is easily repacked without taking the sprayer to pieces, and is unusually large, known as a "differential" plunger, which produces a continuous stream of liquid from the nozzle, similar to the action of a double-action pump. The large standard provides an ample air chamber. The base is made so as to fit either the end or side of a barrel.

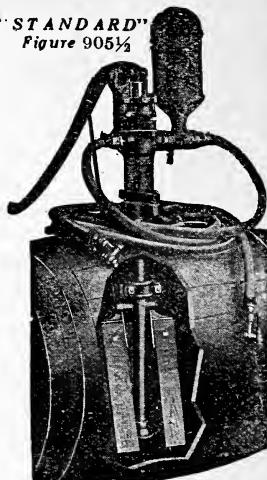
Outfit A.—Pump and strainer only	\$ 7.50
Outfit B.—Pump with agitator and suction pipe	9.00
Outfit C.—Same as B, with 1 15-foot lead of hose and nozzle	12.00
Outfit D.—Same as C, with 2 15-foot leads of hose and nozzles	15.75
Outfit E.—Same as D, with 2 bamboo extensions and globe valves	18.50

We supply a barrel and mount sprayer for \$2.50 extra.

Field Crop or Potato Sprayer

A practical 4 row adjustable attachment including nozzles, for use with any barrel or power pump. A first-class outfit built for service.

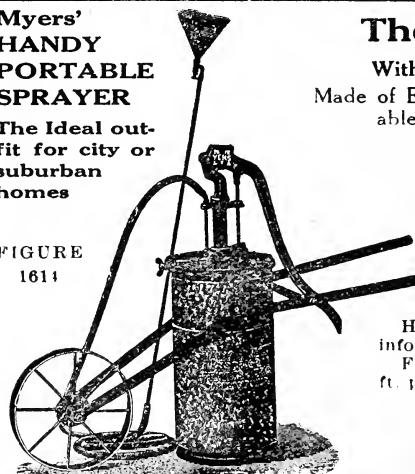
Price, Complete, \$15.00



Myers' HANDY PORTABLE SPRAYER

The Ideal outfit for city or suburban homes

FIGURE 1614



The Handy Portable Sprayer

With Cog Gear Spray Pump and Mechanical Agitator

Made of Extra Heavy Galvanized Iron; Capacity 12 $\frac{1}{2}$ Gallons; Suitable for Spraying Trees, Whitewashing, Painting, Etc;

A General Utility Pump About the Home.

Has been designed for small growers, city and suburban homes, and for all purposes where nothing as large as a barrel or power outfit is needed, and is the right outfit for the poultryman who does much regular spraying or whitewashing.

The pump is securely attached to the tank by a thumb-screw and handle can be changed to any position.

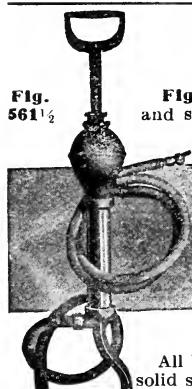
Handles and wheel are wrought steel, tank is heavily reinforced with steel bands.

Fitted complete with mechanical agitator, 15 feet of hose, 8 ft. pipe extension in two 4-ft lengths. Wt., packed, 79 lbs.

Price, \$22.50

Auto-Spray No. 40

A Portable Sprayer of the above type, suitable for all spraying purposes, whitewashing and cold water painting. Has brass plunger, graphite packing, brass ball valves easily accessible, strong, simple, durable and will maintain a pressure of 150 lbs. Capacity of tank 12 gals. Wt. packed, 80 lbs. Price \$20.00, F. O. B. Portland



Hand Pumps and Sprayers

Premier Bucket Pump

Fig. 561 $\frac{1}{2}$.—Brass bucket pump, arranged with suction and discharge hose and spray nozzle, which will throw a solid stream or fine spray. Pump has brass cylinder, plunger and rod, and is particularly adapted for washing windows and wagons, spraying flowers in conservatories, gardens, etc., etc.

Price, complete, \$5.75



Bordeaux Bucket Pump

Fig. 1129.—Brass garden and spray pump; is especially designed for spraying in gardens and greenhouses. The pump is double action in effect; Seneca nozzle, ball valves; proof against the action of acids and oils. Footpiece is malleable iron. Pump is set in pail or bucket, with foot outside. Weight 6 $\frac{1}{2}$ lbs.

Price, complete, \$4.50

Diamond Spray and Force Pump No. 32

All brass except handle and stirrup. Ball valve, air chamber, 3 nozzles, one for solid stream for fire fighting. 3 feet of good hose. Will throw a continuous even stream or spray, a very powerful bucket pump. Wt., packed, 6 $\frac{1}{2}$ lbs. Price, \$4.50

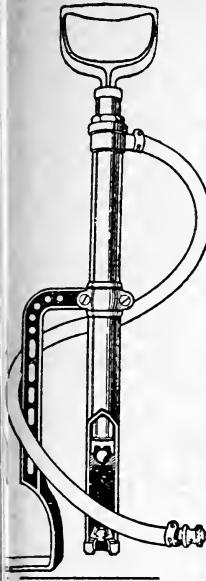
Fruit and Ornamental Trees, Berry Bushes and Plants, Roses and Flowering Bulbs—New and improved varieties for Northwestern growers, fully described in our 64-page illustrated Autumn Catalog. Mailed Free on Request.

SPRAY PUMPS AND SPRAYERS—Continued

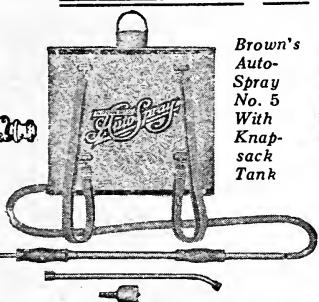
MODOC

The Modoc is a splendid value in a Bucket pump being strongly built of the best material. Has large air chamber making possible a very heavy pressure.

Price, each, \$3.00



No. 5 Auto-Spray has developed a pressure of 180 lbs.



Brown's
Auto-Spray
No. 5
With
Knap-sack
Tank



Acme Compressed Air Sprayer

Made of strong galvanized steel with locked seams tested to 60 lbs. air pressure. Brass pump-seat, bronze ball check-valve easily removable, seamless brass cylinder 1½ in. diameter, solid brass, non-corrosive, self-cleaning nozzle with spiral point producing whirling spray, an exclusive patented feature producing a finer and better spray than any other pressure sprayer.

Capacity 3 gals., adjustable carrying strap, 3 foot extension.

Price, each, \$5.25

Brown's Auto-Spray No. 5

The ideal all-purpose hand pump. Will spray at high pressures up to 180 lbs., or can be adjusted for whitewashing, or to throw a solid stream for washing buggies or fighting fires. Is solid brass, double-action ball valves. Can be easily and quickly taken apart. **Price, with Galvanized Knapsack Tank, as illustrated, \$7.50; Pump alone, \$4.50; Extra Extension, 50¢ each.**

Brown Auto-Spray No. 1

The "Auto-Spray" No. 1 works automatically for six to fifteen minutes. Two pumpings will usually discharge the entire contents. Simply fill two-thirds full of solution and pump up air pressure.

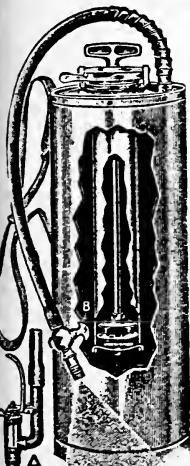
No other style of sprayer will do such a variety of work and do it so well. We recommend it for shrubs and vines, greenhouses, poultry houses, hospitals and stables for disinfectants, for sheep and cattle dip and fly oils.

Diameter, 7 inches. Height, 2 feet. Capacity, 4 gallons. Weight, empty, 8 lbs. Weight, loaded, 39 lbs. Weight, shipping, 13 lbs. **Price, Galvanized, with auto pop nozzle, \$5.50; brass, \$7.75.**

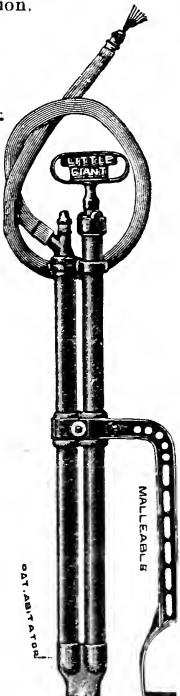
Portland Seed Co.'s Bucket Pump

This little pump is very convenient for all sorts of small work. Has brass cylinder and valves, two nozzles, for fine or coarse work. The best low-priced pump on the market.

Weight, 6 lbs., Price, \$3.00 BUCKET PUMP



Auto-Spray No. 1



P. S. CO.'S

Portland Seed Company's Handy Carts

All Metal Parts Malleable Steel, Strong, Light, and Easy Running.

No. 4 Barrel Cart

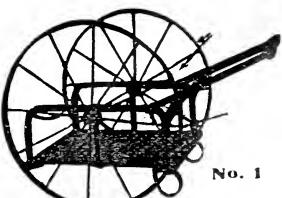
Will pick up any kind or size of barrel from a lime to large spray barrel, holding it firmly; no attachment necessary on the barrel. Contents can be emptied by simply raising the handles. Has 36-inch wheels, 2 ½-inch elliptical rims, ½-inch steel axle; weighs, K. D., 70 pounds.

Price, \$8.00

No. 1 PLATFORM.—Best cart for general use. Will carry four large milk cans, sacks of potatoes, wood, barrels, in fact, anything heavy can be easily and quickly handled. Platform 27x30 inches; 36-inch wheel, 2 ¼ inch elliptical tire. Neatly finished and painted. Weight, K. D., 85 pounds. **Price, \$8.75**



No. 4



No. 1



Spray Pumps and Sprayers

Lever Handle Bucket Pump No. 324

The lever handle and large air chamber make this the most powerful bucket pump and the easiest one to operate. All working parts are solid brass with brass ball valves and patent agitator. Fitted with graduating Vermorel nozzle to throw a fine or coarse spray or a solid stream. Weight, 8 lbs. Price, \$4.50

LEVER-HANDLE BUCKET PUMP No. 324

"Corona" Powder Sprayer—Gold Medal Award for Mechanical Efficiency—See Page 101

Aspinwall Sprayer

Fig. 30. One of the most convenient and economical hand sprayers for applying liquid lice-killers, sprays, etc. Nothing cheap but the price. Weight, 1 $\frac{1}{4}$ lbs. Price, 50c



LITTLE-ASPINWALL

Fig. 30

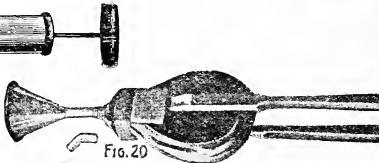


Fig. 20

Price, ea., 75c

Acme Single Powder Bellows

Fig. 20. Excellent for blowing powder on vines and bushes; good size, and works fine. Wt., 2 lbs.

Price, \$1.25

Blow Powder Sprayer

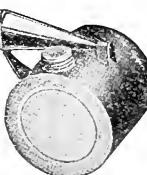
A serviceable tin dust sprayer; wt. 1 $\frac{1}{4}$ lb. Price, ea., 75c



Faultless Hand Sprayer

A strong, well made hand sprayer similar to Aspinwall, except the reservoir is attached at right angles to the Pump. Wt. Pkd., 1 $\frac{1}{2}$ lbs.

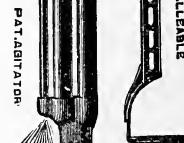
Price, 50c



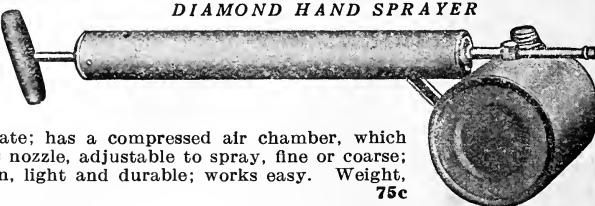
Insect Powder Gun

There is no need to waste any powder if you use this small hand powder blower. Detachable bottom for filling. For use in applying insect powder of any kind on poultry, dogs or cats.

Price, ea., small, 15c; large, 30c, postpaid.



DIAMOND HAND SPRAYER



Portland Seed Co.'s

Diamond Hand Sprayer

This is the best hand sprayer to date; has a compressed air chamber, which makes the pressure continuous; has brass nozzle, adjustable to spray, fine or coarse; brass ball valve; is simple in construction, light and durable; works easy. Weight, 1 $\frac{1}{2}$ lbs.

75c

Plant Sprinklers

These little sprinklers are used by all florists for spraying pot plants with water or insecticide. They are made of the best quality of rubber, and are durable and lasting. Made in two styles. Straight and angle neck. Will spray in any position, and can be quickly filled. (See cut.)

BUSY

A regular water flitter, runs easy. Weight, 2 lbs.

Price, \$1.00



BUSY



PACIFIC

No. 1. 5-oz., Straight neck, wt. 4 oz. Each \$0.60

No. 3. 10-oz., Straight neck, wt. 8 oz. Each 1.00

No. 1. 5-oz., Angle neck, wt. 4 oz. Each 0.65

No. 3. 10-oz., Angle neck, wt. 8 oz. Each 1.10

C. B. G. See Cut page 97.

Cheap, but good. Best cheap sprinkler.

Weight, 2 lbs. Price 35c



PLANT SPRINKLER

Pacific Lawn Sprinklers

Properly constructed, iron stand, upper part all brass. Turns with small force. Weight, 3 $\frac{1}{2}$ lbs.

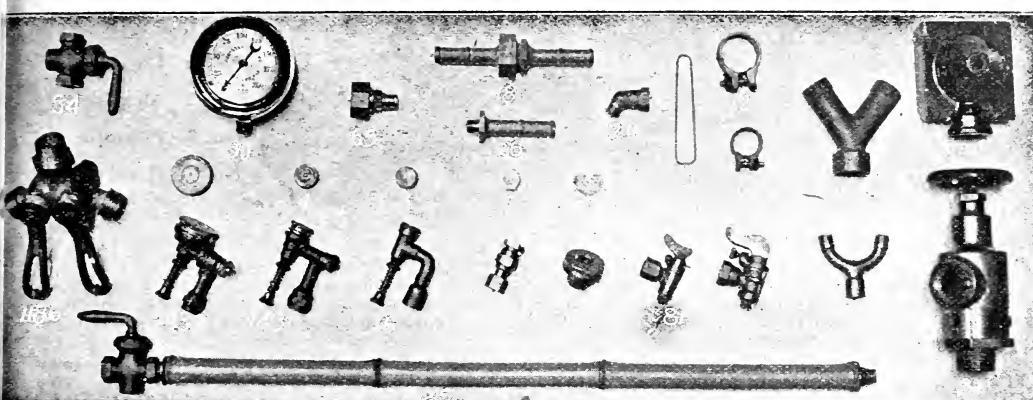
Each \$1.25

SPRAYOMETER—For Testing Lime-Sulphur

For testing lime and sulphur and other solutions. Registers from 0 to 35 Baume scale, and 1000 to 1300 specific gravity. A well made, reliable instrument that protects you against low grade sprays. Weight, 1 $\frac{3}{4}$ lbs.

Price, each, 75c

SPRAYOMETER SET Consisting of one LI-SUL Sprayometer, one 12-inch plain Glass Cylinder in wooden container, with full instructions. Per Set—Weight $\frac{1}{2}$ lb., \$1.25.



Nozzles, Connections and Hose Supplies

Fig. 1501. Non Clog, Jr. Best hop nozzle; throws a perfect spray; of greater capacity and a great improvement over other nozzles; produces a fog in great volume at a light pressure. Wt. 8 oz. **Price, 65c**

Fig. 16. Vermorel Nozzle. With degorger, affords a conical discharge. Very popular. Weight 4 ozs. **Price, 75c; extra cap, Fig. 3, 20c**

Two-Discharge Vermorel. Covers twice the surface sprayed by the single nozzle. It is the nozzle for general orchard work. Wt. 1 lb. **Price, \$1.75**

Fig. 81. Seneca. Gives a very wide spray; discharge easily graduated. Weight 5 oz. **Price, 75c**

Fig. 1. Bean's Best. Best long-distance nozzle. Wt. 2 ozs. **Price, 75c; extra cap, Fig. 5, 20c**

Fig. 17. Bordeaux. Weight 6 oz. Use this nozzle for whitewashing. **Price, 75c**

Fig. 20. Nozzle Ell. Weight 2 ozs. **Price, 25c**

Fig. 30. Pressure Gauge. Weight 2 lbs. **Price, \$1.50**

Fig. 31. Relief Valve. Wt. 3 lbs. **Price, \$4.00**

Fig. 26. Hose Connection. Weight $\frac{1}{4}$ lb. **Price, 25c**

Fig. 65. Hose Reducer. Wt. 3 ozs. **Price, 30c**

Fig. 1186. Double Cut-off. Weight 2 lbs. **Price, \$2.00**

Fig. 49 $\frac{1}{2}$. **Brass Y.** $\frac{1}{4}$ -inch, for hose coupling. Weight 1 lb. **Price, 75c**

Fig. 1074. **Brass Y.** $\frac{1}{4}$ -inch, for nozzle only. Weight $\frac{1}{4}$ lb. **Price, 50c**

Figs. 11-12. **Brass Yerdon's Bands.** $\frac{1}{4}$ or $\frac{1}{2}$ -inch. **Each, 5c; doz., 50c; Postpaid, 60c**

Fig. 13. Caldwell Bands.

Doz., postpaid, $\frac{1}{4}$ -inch, 25c; $\frac{1}{2}$ -inch, 30c

Gem Hose Nozzle. One of the best for yard use. Weight 1 lb. **Price, 40c**

Fig. 25. Bamboo Extension. Has iron pipe inside of bamboo, threaded for nozzles and stopcock. **Price, with stopcock (Fig. 54) —**

Bamboo	Iron	Bamboo	Iron		
2 to 4 ft.	\$1.35	\$1.00	10 ft.	\$1.75	\$1.30
6 ft.	1.45	1.10	12 ft.	1.90	
8 ft.	1.60	1.20			

Without stopcock deduct 60c

Fig. 54. Stopcock. Weight $\frac{1}{2}$ lb. **Price, 65c**

Fig. 18. Hose Coupling. $2\frac{1}{2}$ -inch shank, for heavy pressure spraying.

For $\frac{1}{2}$ -inch hose, price, pair, 65c, postpaid

Hose Couplings, for garden hose, $\frac{1}{2}$ -inch or $\frac{3}{4}$ -inch, complete. **Price, 15c; postpaid, 25c**

Hose Washers. $\frac{1}{4}$ -inch, rubber. **Doz., 10c**

C. B. G. Lawn Sprinkler. Wt. 2 lbs. **Price, 35c**

Skinner Sprinkling System

SKINNER SYSTEM PORTABLE SPRINKLERS

LAWN MIST SPRINKLER — waters grass on really scientific principles—flower beds and borders too. The water falls as a fine soaking mist—as evenly as rain itself, yet so gently that it does not knock off the most delicate flower petals, and does not pack the ground. This time let's settle your lawn sprinkling troubles for good. Simple, durable, no moving parts, waters uniformly, distributes a fine mist, easily moved, built in sections which can be used singly or together.

LAWN MIST--Fifteen Foot Section waters twenty feet wide by eighteen feet. **Price, \$9.85**

PEACOCK--Twelve and a half foot Section waters sixty feet wide by fifteen feet. **Price, \$12.50**

Flexible Connections between two Sections used together. **LAWN MIST.... Each, \$1.25**
PEACOCK..... Each, 1.25

Portable Sprinklers on Stand

LAWN MIST JR. on stand instead of wheels. 12 $\frac{1}{2}$ feet. **Price, \$6.00**

BORDER AND SHRUBBERY SPRINKLER, lawn mist type watering on one side only. 15 feet. **Price, \$11.25**

PEACOCK JR. on stand instead of wheels. 8 feet. **Price, \$7.00**

BORDER SPRINKLER JR. on stand, a very popular sprinkler. 9 feet. **Price, \$6.00**

COMPLETE GARDEN SPRINKLING LINES

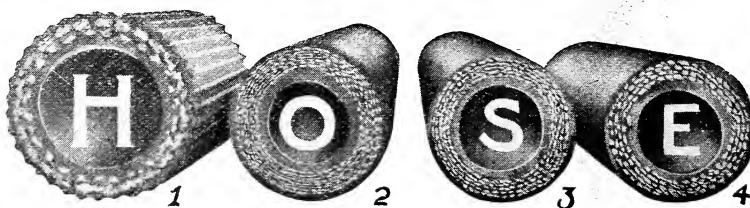
Single Sprinkling Line as shown above, but fitted with special quick acting couplings so that it can be easily put together or moved. Sold by the foot. Just the thing for a garden or flower garden. Complete, except posts to support it. Waters a strip 50 to 60 feet in width.

50 Foot Line..... **Price, \$19.50**

100 Foot Line..... **Price, 37.50**

Other Lengths in proportion.

Complete Information and Price List of Nozzles and Parts on Request.
Of Special Interest to Commercial Growers.



No. 1—Corrugated
 No. 2—Monarch
 No. 3—Pomona
 No. 4—Hood

For Spray Pumps and Gardens.

THIS season we are offering our customers a very complete and reliable line of spray and garden hose. We buy in very large quantities, direct from the manufacturers, which places us in a position to quote the following very low prices. Most of the brands we offer are manufactured especially for us, and can be obtained nowhere else.

NOTE.—All our hose, excepting spray, is furnished in 50-foot lengths, and comes coupled **ready for use.** We will cut any of these hose in 25-foot lengths at an additional cost of 25c for couplings. We will cut $\frac{1}{2}$ -inch Pomona and Monarch Spray Hose in any length desired, at an extra cost of 65c for spray couplings in less than 50-foot lengths.

MONARCH SPRAY HOSE.—The Monarch, a new spray hose, is even a better grade than our well-known "Pomona." It is absolutely the best hose we can buy; the rubber is of exceptionally good quality and is very heavy; and we do not hesitate to recommend it to orchardmen, who must have a very high-grade and strong spray hose.

MONARCH SPECIAL SPRAY.— $\frac{1}{2}$ -inch

Per ft., 15c

POMONA SPRAY HOSE.—Our well known Pomona is the best hose which can be bought at a moderate price. It has stood the test of time and hard usage, and has always proved good.

Price, $\frac{1}{2}$ -in., per ft., 12 $\frac{1}{2}$ c

SUCTION HOSE.—This is an excellent grade of suction hose, and is what we furnish with our regular pump outfit.

Per ft., $\frac{1}{2}$ -in., 27c; 1-in., 30c; 1 $\frac{1}{4}$ -in., 35c

AJAX SPRAY HOSE.— $\frac{1}{2}$ -inch only.

Price, per ft., 10c

CORRUGATED GARDEN HOSE.—A new process, corrugated rubber hose, that will not kink or break. Especially recommended for florists and gardeners who use hose continuously.

Price, per ft., $\frac{1}{2}$ -in., 21c; $\frac{1}{4}$ -in., 25c

"HOOD" GARDEN HOSE.—This is an excellent grade of garden hose. It is made with four heavy plies of canvas, and with good thick inside tubing. We have no hesitancy in recommending this for ordinary garden use.

Price, $\frac{1}{2}$ -in., per ft., 10c

ST. HELENS GARDEN HOSE.—This is a good grade of garden hose of moderate price, and where a hose of medium price is wanted it will give excellent satisfaction.

Price, $\frac{1}{2}$ -in., per ft., 8c

Spray Calendar—When to Spray, What to use

Insect or Disease.	Plant Attacked.	What to Spray With.	First Spraying.
Codling Moth.....	Apple, Pear.....	Arsenate of Lead.....	Just before calyx cups close.
San Jose Scale.....	.....	Scalecide, Standard Sulphur Lime Solution.....	When leaves are off the tree.
Oyster Shell Bark Louse	Apple, mainly.....	Standard Sulphur-Lime Solution.....	When leaves are off the tree.
Peach Moth or Twig Borer.	Peach.....	Scalecide, 1 part to 20 parts water.....	When the insects appear.
Woolly Aphis.....	Apple.....	Scalecide, 1 part to 40 parts water.....	When the insects appear.
Aphis.....	Roses and plants.....	Aphicide, Nicoticide.....	Just as soon as the insects appear.
Cabbage Worm.....	Cabbage.....	Bug Death (non-poisonous)	Before the worms eat into the cabbage.
Cabbage Aphis.....	Cabbage.....	Scalecide, 1 part to 40 parts water.....	When the insects appear.
Slug.....	Pear, Cherry, Peas.....	Slug Shot, or Bug Death.	When the insects appear.
Thrips.....	Roses.....	Thrip Juice, or Aphicide.	When the insects become cottony (May).
Cottony Scale.....	Pear, Currant.....	Scalecide, 1 part to 40 parts water.....	Just before blossoms open.
Scab.....	Apple, Pear.....	Bordeaux.....	Immediately after leaves [fall.
Blackspot Canker.....	Apple.....	Bordeaux, double strength.	Before buds burst.
Leaf Curl.....	Peach.....	Standard Sulphur-Lime Solution.....	Just as buds burst.
Mildew.....	Gooseberry.....	Potassium Sulphide, 1 oz. to 2 gallons water.....	Just as buds burst.

Gould Spray Pumps WILL GIVE AND MAINTAIN THE NECESSARY PRESSURE TO SPRAY RIGHT. They are built for lasting service. See Page 92.



SPRAYING to be effective MUST BE WELL DONE—

"How to Spray—When to Spray—What Sprayer to Use" is a valuable and interesting book that tells all about sprays and sprayers. We will mail this book to you free on request.

SPRAYS, INSECTICIDES, POWDERS and WASHES

THE great improvement in Sulphur and Arsenate of Lead Sprays and methods of manufacture have not only reduced their cost and the risk and expense of preparing and using them but have also increased their efficiency, and it is now possible to secure a dependable and uniform product of a known strength that is easy to use and that will give profitable and satisfactory results.

**SPRA-SULPHUR—Dry**

SPRA-SULPHUR is a granular compound that quickly dissolves in cold or hot water—stays in solution—will not clog or cut nozzles and is a superior and efficient form of sulphur for destroying SAN JOSE and other SCALE INSECTS and all FUNGUS diseases that can be controlled in the dormant season, and as a SUMMER SPRAY for APPLE SCAB, APHIS LARVAE, MILDEW and other Fungus troubles. The lime in Lime-Sulphur causes the solution to quickly form a crust, on striking the tree or scale which arrests its action. **Spra-Sulphur contains no lime, does not crust, but spreads and penetrates.**

100 pounds equals a 600 pound barrel of Lime-Sulphur Solution

Costs less and does better work, no leaky barrels, no waste, keeps indefinitely and you pay no freight on water.

SPRA-SULPHUR is packed in airtight, friction-top tins and should be kept tightly covered until ready to use, as it is so readily soluble that if exposed to the air it will attract sufficient moisture to dissolve it. But if kept sealed will keep indefinitely.

FOR WINTER SPRAYING when trees are dormant, use 10 pounds of SPRA-SULPHUR to 50 gallons of water. For control of Scale and Fungus diseases.

FOR SUMMER SPRAYING, when trees are in leaf, to control **Apple Scab, Aphids Larvae, Mildew, etc.**, use 1 1/2 pounds to 50 gallons of water.

When ARSENATE of LEAD is added for codling moth and all chewing insects make your sulphur solution first, then add Arsenate of Lead, "CORONA DRY POWDERED" 3/4 of a pound to 50 gallons of solution. If paste form is used, 1 1/2 pounds to 50 gallons is needed.

Prices: 1 pound 20 cents 10 pounds \$1.25 50 pounds \$4.00
5 pounds 75 cents 25 pounds 2.50 100 pounds 7.50

Spra-Sulphur is not as harmful to your skin nor as corrosive as lime-sulphur

Spra-Sulphur is manufactured in Oregon under the original patents (granted to Chas. E. Hite, filed in 1910 and recently reissued) covering the exclusive right to the use of all fixed alkalies such as soda ash (sodium carbonate) and all similar compounds, with sulphur in the manufacturing of spray materials.

Scalecide

The best miscible oil spray for San Jose scale and soft-bodied, sucking insects. Also contains a powerful fungicide, which will control fungus diseases that are controllable in the dormant season.

This assertion is not based on a single test on ten or a dozen trees, but on actual work in great commercial orchards, where thousands of gallons of spray were used. "Scalecide" is a petroleum oil that mixes readily with cold water in any proportion, and stays mixed. It is not necessary to use an extra tank or barrel, and no hot water should be used. Prepared by adding one gallon of "Scalecide" for every fifteen or twenty gallons of water, right into your spray tank. No crude oil is used in the manufacture of "Scalecide," all the light and heavy oils that might prove injurious being removed—but all of the soluble sulphur is retained; this has the **Insecticidal value**. That "Scalecide" is a **satisfactory and dependable remedy for San Jose Scale** is attested by the records of some of the largest commercial orchards in the United States.

Free sample and full information on request.

PRICE per qt., 40c; gal., \$1.25; 5 gals., \$4.50; 10 gals., \$8.75; 50-gal. bbl., \$37.50.

Diamond Lime and Sulphur Solution

For San Jose Scale.

You can not afford to risk a cheap open kettle product. Be safe. Use the best.

Diamond Lime and Sulphur Solution is prepared in pressure tanks by steam, and is always uniform and of the highest efficiency.

The "Lime and Sulphur" Solution for San Jose Scale is endorsed by experimental stations and state horticultural societies of all the fruit-growing states as the standard preparation for exterminating San Jose Scale on all deciduous trees.

Our Lime and Sulphur Solution tests 30 Baume Scale, is made of the purest and best quality of Sublimed Sulphur and of Lime, is a clear, deep cherry colored liquid, free from sediment, and is all ready to mix just as you get it. Merely add 11 gallons of water with each gallon of the Lime and Sulphur Solution. There is no sediment to clog the sprayers. No boiling to be done, which saves fuel, time, labor and annoyance. It is always alike and uniform in strength and results.

Price, 1 qt., 25c; 1 gal., 50c; 5 gals., \$1.65; 10 gals., \$3.20; 50-gal. bbl., \$8.50.



"CORONA" Arsenate of Lead

DRY POWDERED

Contains only ARSENIC and LEAD OXIDES. NO FILLERS

"CORONA" carries the highest possible percentage of arsenic oxide—33%—and is always uniform.

Mixes Quickly and Easily. Stays Mixed Longer and Sticks better to leaves, branches and fruit than Any Other Arsenate.

No sediment—No lumps—No waste—Never clogs nozzle

"CORONA" Dry Powdered Arsenate is a Light, Fluffy Powder that cannot freeze, dry out, cake or lose its strength—is always uniform and requires only 1 pound to 50 gallons of water. Efficient, Economical and Convenient. Highest Percentage of Killing Power.

PRICES: $\frac{1}{2}$ lb. 25c; 1 lb. 40c; 5 lbs. \$1.75; 10 lbs. \$3.00; 25 lbs. \$6.75; 50 lbs. \$12.50;
100 lbs. \$24.50; 200 lbs. \$47.00

At HOOD RIVER—where the famous "Hood River Apples" grow
The Apple Growers' Association have ordered their

Third Car of "CORONA ARSENATE of LEAD"

For the reason that *Corona* has given them better satisfaction than other arsenate preparations

Lime-Sulphur Solution Combined With Arsenate of Lead for Summer Spray

We have found in our experience that the combination of Lime-Sulphur solution with Arsenate of Lead for summer spray for apples and pears has given splendid satisfaction used in the following manner:

50 gallons of Arsenate of Lead solution should be prepared and to this add $1\frac{1}{2}$ gallons of Lime-Sulphur solution, standard strength (30 degrees Baume). First application should be made when the calyx falls; the second when the apples are about the size of walnuts; third, during the month of August.

Preparation should be used as soon as mixed and not allowed to stand for any great length of time.

While some growers express a preference for special brands of Lead, in my experience any of the standard brands can be used according to the above method of application.
(Signed) J. E. STANSBERRY, State Inspector.

DIAMOND SPRAY-OIL

SPRA-OIL is a miscible oil spray manufactured at Hood River, Ore., and has been used by the big commercial orchards in that section with the greatest success, especially in spraying for leaf roller.

As a WINTER SPRAY:

For San Jose Scale, Pear Scylla, Leaf Roller, Woolly Aphid, use one gallon of Spra-Oil to 15 or 16 gallons of water.

As a SUMMER SPRAY:

Very efficient for young San Jose Scale and certain Aphids, when diluted with 50 to 100 gallons of water to one gallon of Spra-Oil—depending on the foliage, which, if very tender, should be sprayed with a weaker solution than 1 to 50.

Directions for Diluting:

Shake and stir well while in the original package; after this, mix with one part of water to one part of Spra-Oil, which will readily emulsify to a creamy consistency. When this is thoroughly mixed, put it in the spray tank and it will stay in suspension.

Price, qt., 35c; gal., 90c; 5 gals., \$3.00; 10 gals., \$5.50; bbl., \$17.00

Tree Tanglefoot

For caterpillars, moths and worms. Protects against all climbing insects. One pound makes a band 9 feet long.

Price, 1 lb., 35c; 3 lbs., \$1.00; 10 lbs., \$3.00; 20 lbs., \$5.50.

Portland Seed Company's

APHISCIDE

Our Best Summer Spray for Roses

A clean, efficient spray for aphid, thrip, and kindred insects on plants of any kind. Specially fine for house plants, as it has no offensive odor and will not injure or stain the plants.

Price, qt., 25c; wt., 3 lbs., gal., 60c

Knoxweed

A single application of Knoxweed kills Plantain, Thistle or any Noxious Weed—Top and Root. Sold under a positive guarantee.

Price, Dropper can, 50c; $\frac{1}{2}$ gal., \$1.50; gal., \$2.50.

BLACK LEAF "40."—The Standard tobacco spray. 1 lb. makes 170 gals.

$\frac{1}{2}$ lb. can, 75c; 2 lbs., \$2.50; 10 lbs., \$10.75

BORDEAUX MIXTURE.—(Lion Brand.) For fungi—in liquid form. Dilute with 49 parts of water. 1 qt., 60c; wt., 4 lbs.; 1 gal., \$1.60

BLUESTONE.—(Vitrol.)

1 lb., 25c; per 100 lbs., market price

PARIS GREEN.—(Lion Brand) The standard of purity. Guaranteed superior to other makes.

Price, $\frac{1}{4}$ lb., 15c; $\frac{1}{2}$ lb., 25c; 1 lb., 50c;

FISH OIL SOAP.—For aphid, plant lice, etc.

1 lb., 15c; 100 lbs., \$6.00

"CORONA" Powdered Arsenate is used exclusively in the largest commercial orchards of our great fruit producing sections where results have demonstrated its greater efficiency and economy.

Sprays, Spray Material and Washes—Continued

~~LIQUID~~ **Liquid Sprays Cannot be Mailed. Solid sprays, extra for postage.**

“CORONA DRY”**The Universal Insecticide**

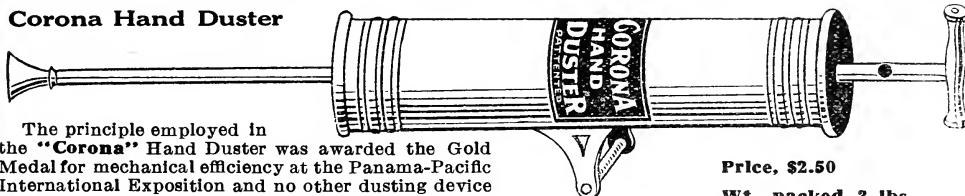
“CORONA DRY” is a chemically pure arsenate of lead, containing one-third arsenic—the most effective poison known for leaf eating insects—and is closely combined with the pure lead in such a way as to leave no free arsenic to burn foliage.

A safe, inexpensive, easily applied and efficient remedy for all chewing garden pests—and for use on fruit trees, berry bushes and plants that will insure perfect fruit and clean vegetables.

PRICE $\frac{1}{2}$ lb. 1 lb. 5 lbs. 10 lbs.
25c 40c \$1.75 \$3.00

Also in 25, 50, 100 and 200 lb. pkgs.

“CORONA DRY” is best applied with the new CORONA HAND DUSTER, specially made for doing rapid and effective work over large areas of trees, vines, bushes and plants; but for small yards or gardens with no trees, a less expensive duster or powder gun will do the work.

**Corona Hand Duster**

The principle employed in the “Corona” Hand Duster was awarded the Gold Medal for mechanical efficiency at the Panama-Pacific International Exposition and no other dusting device in its class can approach it for efficiency, ease of manipulation, simplicity and durability.

Price, \$2.50

Wt., packed, 3 lbs.

CORONA SULPHUR—For use with Corona Arsenate

CORONA DUSTING SULPHUR is a highly refined pure sulphur reduced to an impalpable powder specially for dusting purposes. The use of this finely powdered sulphur in the summer season for fungus diseases of fruit and vegetables is equally as effective as Lime-Sulphur; is more easily applied and there are no harmful results as it is a pure, non-poisonous sulphur.

Price, $\frac{1}{2}$ lb., 10c; 1 lb., 18c; 5 lbs., 75c; 10 lbs., \$1.20; 100 lbs., \$10.00

CORONA DRY AND CORONA DUSTING SULPHUR—Mixed in equal parts by measure, is a complete and satisfactory summer spray for insect pests and fungus diseases; more easily, quickly and effectively applied than other sprays, and is much more economical.

Write for the Corona booklet “Garden Pests and Their Control,” of great value to all growers

BUG DEATH.—A non-poisonous insect-killing powder that is in high favor among gardeners for cabbage, tomato and cucumber bugs, etc. Use 12 lbs. per acre.—**Per lb., 25c; 100 lbs., \$15.00**

BUHACH.—**Oz., 15c; $\frac{1}{4}$ lb., 40c; 1 lb., \$1.00**

HAMMOND'S SLUG SHOT.—For destroying slugs, cabbage and turnip flea, currant worms, etc.

Per lb., 15c; 5-lb. pkg., 50c

HAMMOND'S GRAPE DUST.—To prevent mildew on roses, grapes, and gooseberries.

Per lb., 15c; 5-lb. pkg., 50c

HELLOBORE.— **$\frac{1}{4}$ lb., 15c; $\frac{1}{2}$ lb., 20c; 1 lb., 35c**

KEROSENE EMULSION.—An excellent spray for wooly aphis and clover mite.

Qt., 50c; wt., 3 lbs.; 1 gal., \$1.25

NICOTICIDE.—The best fumigant and spray for greenhouse work. Kills aphis, red spider, mealy bug, thrip, etc.

1 oz. bottle, 25c; 2 oz. bottle, 50c; Pint can, \$2.50; qt., \$4.50; gal., \$15.00

SULPHUR, Powder.—**Lb., 5c; 100 lbs., \$2.50**

TOBACCO DUST.—**Lb., 10c; 10 lbs., 75c; 100 lbs., \$5.75**

POTASSIUM SULPHIDE.—(Liver of Sulphur.)

One of the best preventatives of mildew on roses and berry bushes. Dissolve $\frac{1}{2}$ oz. in one gallon of hot water. When cold apply as a spray.

Potash Preparations not obtainable

AVENARIUS CARBOLINEUM.—For preserving any kind of timber above or below ground.

Qt. can, 40c; wt., 4 lbs.; gal., \$1.50; 5 gals., \$6.00

Cut Worm Food

Use a teaspoonful to a plant or hill.

Cut worms are very fond of this special preparation which is eagerly eaten by them in preference to the plants. A careful test proved 95% of the applications effective on Melons, Cucumbers, Cabbage, Cauliflower, Squash, Tomato and Flowering Plants. Easily applied by sprinkling around the plants and will not injure them in any way.

Price, 1-lb. pkg., 25c

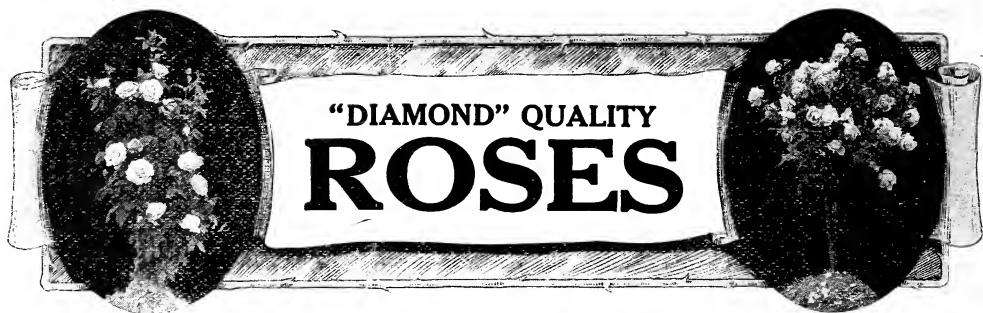
BLUE LABEL**SLUG DESTROYER**

Kills slugs and keeps them away from young plants. Not harmful to delicate foliage.

For Sweet Peas, Pansies and all garden truck sprinkle lightly on and around the plant.

Price, 25c





DIAMOND QUALITY ROSES are large, sturdy, two-year-old, field-grown roses that will give you splendid flowers the first season. They are true to name and our list includes the best of the well known popular varieties, the most meritorious of recent novelties and the Gold Medal roses of famous European growers.

YOUR ROSE ORDER entrusted to us will insure careful selection and no substitution. If you do not find what you want in this catalog write us. Our excellent connections with the great centers of production enable us to supply any variety in commerce.

Abbreviations

T.—**TEA**—One of the best classes of roses, and truly ever blooming. They are hardy in this section, frequently wintering without any protection, although during our coolest weather and in cold sections they should be protected with a covering of fir boughs, straw or burlap.

H. P.—**HYBRID PERPETUAL**—The hardiest of all roses, vigorous in growth and easy of culture, producing large flowers, fine in form and fragrance.

PLANTING AND CARE

In our favored section, roses attain a perfection seldom equaled, but you cannot expect them to thrive and bloom unless you care for them. We offer the following simple suggestions.

SOIL—Any good, well-drained garden soil, enriched with fertilizer, will give excellent results. If heavy clay soil mulch well with burnt earth and manure, rotted sod or leaf mold.

FERTILIZER—Our odorless fertilizer, Bone Meal, Tankage of Blood, will give excellent results and should always be applied after the plants start their growth.

WATERING—When setting out, water regularly until roots are well set; then about once a week unless the ground is very dry; in such cases more often. Do not get the foliage wet after a hot day. This causes mildew.

PRICES.—35c roses, \$3.00 doz.; 40c roses, \$4.00 doz.; 50c roses, \$5.00 doz.; 60c roses, \$6.00 doz.; 75c roses, \$8.00 doz.; \$1.00 roses, \$10.00 doz.

OREGON GROWN ROSES

Roses should reach us in late November and December. Most all stock offered for Fall delivery is budded 2-year Field Grown Roses, as many varieties do not give good results grown on their own roots. But for those who prefer "own root" Roses we can secure most varieties.

We offer a splendid assortment of popular roses and the best of the new ones, and can secure any variety in commerce, TRUE to NAME.

NEW GOLD MEDAL COLLECTION for 1917

Magnificent new roses direct from famous Irish and European Producers, together with the best offerings of our American Growers. Many of the better known roses and some of the newer ones are grown in Oregon and dug and packed as ordered.

Young plants 20 cents each, except sorts marked **★** which are supplied only in two-year-old.

ADMIRAL WARD—(H. T.) A fine bedding variety of vigorous growth and erect branching habit. Spherical blackish red bud opening to large full globular flowers of crimson red with shadings of fiery red and velvety purple. **Each, \$1.00**

AUGUSTUS HARTMAN—(H. T.) Large, well formed flowers, with high pointed center. Is perfectly distinct in color, being a brilliant geranium red flushed with orange. The stout stems make it an ideal rose for exhibition. Foliage not susceptible to mildew. **Each, 75c**

AUTUMN TINTS—(H. T.) A splendid bedding rose producing medium size flowers in great profusion. Color, coppery red, shaded orange and salmon with rich bronze green foliage. Very effective. **Each, 50c**

COUNTESS CLANWILLIAM—(H. T.) A distinct and charming rose, producing flowers in great abundance. Color delicate peach pink, petals flamed and edged with deep cherry red. Long pointed buds opening to large full flowers. Of strong and vigorous habit. **Each, 75c**

FOR ALPHABETICAL CLASSIFIED LIST OF ROSES, SEE PAGE 110.

GOLD MEDAL COLLECTION—Continued



Los Angeles

CONSTANCE—(H. B.) Very free and vigorous growth of spreading branching habit. Long orange yellow bud streaked with crimson, opening to large full flowers of beautiful cadmium, passing to golden yellow. **Each, \$1.00**

DUCHESS OF SUTHERLAND—(H. T.) Delicate warm rose pink with lemon shading on white base. Flowers are large, full and conical with unusually large petals and possess a delicious sweet briar perfume. A splendid exhibition and garden rose. **Each, 75c**

HADLEY—(H. T.) A new American Rose of great promise. Color, beautiful bright red. Very free and constant. **Each, \$1.00**

H. V. MACHIN—(H. T.) A splendid exhibition variety. Color, intense scarlet crimson. Well formed flowers of immense size. **Each, 75c**

HOOSIER BEAUTY—The color is magnificent—crimson scarlet with darker shadings, and velvety texture. Bud long and pointed. A good keeper; deliciously fragrant. A clean vigorous grower. **Each, \$1.25**

LADY MARY WARD—(H. T.) Free, vigorous and hardy, color rich orange, shaded deeper orange with metallic veneering; very brilliant, splendid for bedding and cutting. **Each, 75c**

MAD. EDOUARD HERRIOTT—The famous winner of the Daily Mail Prize. The color being terra-cotta bronze and geranium red, a new combination of colors in a rose. The bud is long and sharply pointed; the foliage is dense, leathery and a deep glossy green; a rare beauty. **Each, 60c**

PRINCESS MARY—(S.) A free blooming, sweet scented rose of deep crimson-scarlet with prominent yellow stamens. Buds long and pointed on stiff stems. Undoubtedly the largest and finest single rose yet produced. **Each, \$1.25**

*New Los Angeles

THIS grand new American Rose is offered as the most valuable and useful introduction of recent years. The foliage is a rich luxuriant glossy green, proof against mildew and fungous attacks, the canes are strong, growth vigorous and each shoot bears a glorious, perfect rose of exquisite form and rare beauty of coloring, described by the originator as "a luminous flame pink toned with coral and shaded with translucent gold at the base of the petals." The fragrance equals in intensity the finest Marechal Neil; the wonderful beauty and form of the buds, long pointed and lasting, and the fact that open flowers will keep for five or six days after cutting make "Los Angeles" a most valuable cut flower and decorative rose. The flowers are very large, petals of good substance, firm and lasting and the beauty of coloring does not fade, they are borne profusely from early summer until late autumn, the strong shoots often attaining a growth of four or five feet. When the flowers are cut from these shoots the plants throw side shoots which flower freely, and under the most severe tests of weather "Los Angeles" maintains its healthy growth, vigor and blooming qualities. We urge you to give this grand new garden and exhibition rose a trial. Two-year-old field grown plants only.

Each, \$2.00

*OPHELIA

See Cut Page 104

(H. T.) This wonderful new and delightful rose, with orange salmon buds, the gracefully reflexed petals, shading to dainty pink, the open flowers of great refinement and rare and lasting beauty need only be known to rank as a leader among our finest garden roses. The foliage is clean, dark and leathery—the growth vigorous and free, producing long canes, every one crowned with a perfect flower. Blooms early and continuously. "Ophelia" should have a place in every rose garden. **Each, 75c**

NATIONAL EMBLEM—(H. T.) A most perfect garden and cut flower rose, having long pointed buds carried on strong wiry stems. Flowers are well formed, of beautiful dark crimson overlaid velvety crimson, shading to vermillion towards the edges. Foliage, glossy and not susceptible to mildew. Profuse bloomer and sweet scented. **Each, \$1.25**

OLD GOLD—(H. T.) A splendid garden rose of vivid reddish orange color with coppery red and coppery apricot shadings. Flowers are medium size and moderately full. Fine for bedding. **Each, 60c**

QUEEN MARY—(H. T.) Vigorous, free branching growth, a bedding and garden rose of great beauty and refinement, flowers medium size and fine form, color lemon chrome, bordered at the edge with pure, deep carmine; affording a most delightful contrast. **Each, 75c**

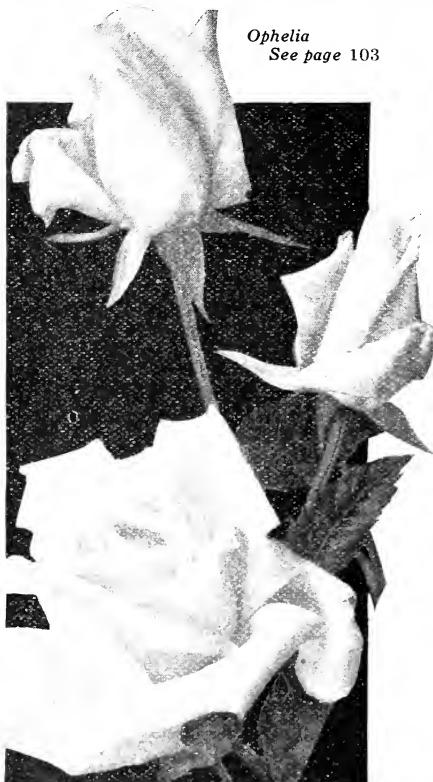
RED LETTER DAY—(H. T.) An exceedingly beautiful semi-double rose of velvety brilliant scarlet crimson. Flowers are medium size, curiously cactus-shaped and do not blue or burn. Its vigorous erect growth and free blooming qualities combined with the splended flowers make this one of the most attractive decorative and bedding roses yet produced. **Each, 75c**



Beautiful Roses of Recent Introduction

The following are the recent novelties and Gold Medal roses that have proven their merit and are now becoming generally in great demand.

★ Fine 2-year Dormant Plants 50c; \$5.00 per doz. unless otherwise priced.
Young plants 20c each, except sorts marked ★ which are supplied only in 2-year-old.



Ophelia
See page 103

BRITISH QUEEN—(H. T.) Pure white large, full flowers of exquisite form, opening freely in all weathers; promises to be one of the best white roses for bedding and cutting.

★COUNTESS OF SHAFTESBURY—(H. T.) A splendid new pink of the most ideal type of Hybrid Tea; flowers are large, perfect in form and produced in the greatest profusion. The color is a bright, silvery carmine, mottled and flushed shell pink, giving a picotee effect; a fine exhibition rose, being a Gold Medal winner.

DUCHESS OF WELLINGTON—(H. P.) Intense saffron yellow stained with rich crimson which, as the flower develops, becomes deep coppery saffron yellow. Delightfully fragrant.

EDITH PART—(H. T.) Free branching growth, flowers of good substance; rich red with a suffusion of deep salmon and coppery yellow, fine garden and exhibition Rose.

EDWARD MAWLEY—(H. T.) Flowers large and full, of finest form, with beautiful, long pointed buds; color deep, rich, velvety crimson which does not fade; flowers keep well when cut.

GEORGE DICKSON—(H. T.) Very strong and vigorous, upright growth, flowers of the largest size; perfect in shape and unique in color, being a velvety blackish crimson, with the back of the petals heavily veined with pure crimson maroon. Delightfully scented. Each, 60c

LOUISE CATHERINE BRESLAU — (H. T.) Coral red, shaded chrome yellow, opening to a large full flower of shrimp pink, shaded coppery orange, free and constant

★JULIET — (H. B.) A magnificent new rose color being a wonderful combination of old gold on the outside of petals and a rich, rosy red on the inside. Flowers are large, full and delightfully scented. Foliage is luxuriant and beautiful.

LADY HILLINGDON—(T.) Deep apricot yellow, long and pointed bud, a fine forcing or garden rose, excellent for cutting. Flowers are of a good substance, very lasting and foliage handsome and luxuriant. Lady Hillingdon is considered the best decorative rose in its class.

LADY ALICE STANLEY—(H. T.) This grand new gold medal rose is large, very full and of splendid substance; petals shell shaped, pointed giving perfect form to the flowers, which are a lovely, deep coral, inside pale flesh; deliciously fragrant and are very lasting. A free grower and a profuse and constant bloomer.

★LYON — (Pernetiana) Lyon is a beautiful shrimp pink with salmon and chrome yellow shadings. Large, coral red buds, beautifully formed; full, globular flowers of rare beauty; a continuous and free bloomer.

MELODY—(H. T.) Intense deep saffron yellow with primrose edges. Blooms are of medium size, very fragrant and freely produced. An excellent bedding and forcing variety.

MRS. AARON WARD—(T.) One of the most delightful roses of recent years in a color that catches the eye at once—a deep golden orange color shading out to lemon or creamy yellow at the edge of the petals.

★MRS. CHAS. E. ALLAN—(H. T.) A delightful garden rose of a delicate and novel coloring, opening a pale orange and changing to ochre as the flower opens. Buds are long, pointed, and flowers are full on good stems, flowers freely every shoot producing a bloom. A vigorous grower and one of the finest garden roses.

MADAME MELANIE SOUPERT — (H. T.) Splendid new orange yellow shaded pink; beautiful, long-pointed buds, large size, free blooming; a strong, upright grower; best of its color.

MARQUIS DE SINETY—(H. T.) Deep saffron yellow, flushed reddish copper. Flower large, beautiful dark foliage.

MRS. CORNWALLIS WEST—(H. T.) Growth very vigorous and erect, producing freely, large full flowers. Color, rosy shell pink changing to pure white with age. Fine for exhibition.

MRS. DAVID McKEE—(H. T.) Creamy yellow, large, full, freely and continuously produced.

MRS. FOLEY HOBBS—(T.) A veritable giant among Tea Roses. Color, delicate ivory white, delicately tinged pink on edge of petals, deliciously scented; a great bedding rose. Each, 60c

★MRS. E. J. HOLLAND—(H. T.) Deep salmon rose, shading lighter as the flower expands, large, full, free blooming good garden and bedding rose.

★RAYON D'OR — (Pern.) Flowers large, full, open freely. Buds long, pointed, of deep orange cadmium smeared claret, opening to a rich sunflower yellow, which does not fade. Foliage is deep, glossy green; and free from the attack of mildew. This splendid new rose is a cross between Melaine Soupert and Soliel D'Or.

SUNBURST—(H. T.) Flowers large, full and of most beautiful form, with long pointed buds, color a superb Cadmium yellow with orange yellow center. The foliage is a handsome bronze green; a vigorous grower and good both as a forcing and garden rose.

Single Roses

2-year-old plants only

AUSTRIAN COPPER—(A. B. Single) A beautiful single rose of the Austrian Briar class. Color, bright reddish copper. Very striking.

Each, 50c

IRISH SIMPLICITY—(S.) Almost single, pure-white and of immense size. The great size and substance of the petals which are slightly cupped and the golden yellow anthers may readily bring to mind the comparison to a huge water lily. Vigorous grower with handsome deep green foliage.

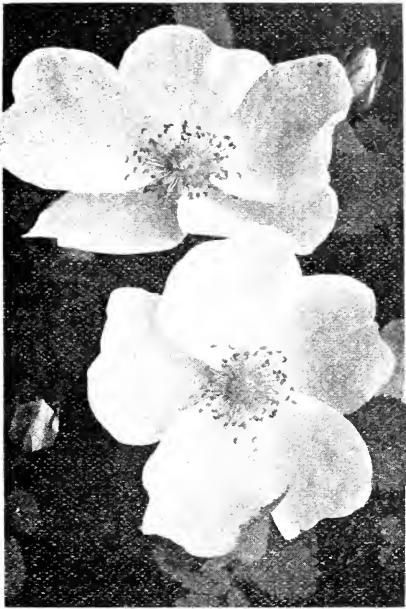
Each, 50c

IRISH FIREFLAME—(S.) A dainty new single rose, buds hold their shape a long time. Color, deep orange splashed crimson, changing to fiery orange crimson, distinct and a valuable decorative rose.

Each, 60c

IRISH ELEGANCE—(S.) Large, single, golden bronze flowers of great beauty, free and constant bloomer, with deep bronze foliage; a fine button-hole rose. These single roses make a charming garden display, blooming profusely, and are also splendid for exhibition.

Each, 40c



Books on Roses, Flowers, Ferns and General Garden Topics

make splendid and appropriate gifts for your garden loving friends. See Book List, pages 62-64.

Grand Garden Roses

These splendid free blooming Roses are newer varieties that are becoming more plentiful and can be offered at a very low price. In this list you will find many famous prize winners and some of the most beautiful and popular roses.

Price: Young Plants 20 cents each; 3 for 50 cents; Two-year-old Plants 40 cents each, unless otherwise priced.

DOROTHY PAGE ROBERTS—(H. T.) Coppery pink, suffused with apricot yellow, very free and perpetual, a delightful garden rose.

FARBEN KOENIGIN—(H. T.) Imperial pink, reverse of petals carmine, very free and perpetual, good bedding rose.

HARRY KIRK—(H. T.) A splendid rose of deep sulphur-yellow color passing to a lighter shade at the edge of petals. Buds long and elegant. Blooms freely and continuously; is of robust growth and free branching habit.

HEINRICH MUNCH—(H. P.) "Pink Frau Karl Druschki." Color, soft pink, very large and full flowers.

JONKHEER J. L. MOCK—(H. T.) A magnificent and unique rose. Inside of petals red, outside silvery blush white. Of fine form, good substance and largest size. A strong, rapid grower.

JOSEPH HILL—(H. T.) Salmon pink shaded yellow. Outside petals yellow suffused copper, a large, free blooming rose of elegant form.

KILLARNEY QUEEN—A sport from the well known Killarney but a much more robust grower, producing fine, large, nice formed buds of a deep rich rose color, lightened towards edge of petals. Very strong growing, remarkably strong canes of great length. A fine garden rose.

LADY ROBERTS—(T.) Rich apricot, base of petals coppery red, edges of petals shaded orange, buds long and pointed; very beautiful.

LE PROGRESS—(H. T.) Nankeen yellow, opening to saffron yellow; large, full and cupped, opening freely; a grand rose, always in flower.

MILADY—A splendid forcing and garden rose, producing large, well-formed flowers, carried on stiff erect stems. Color is a beautiful red, closely resembling "Richmond", but is more vigorous in growth.

MILDRED GRANT—(H. P.) Delicate pale pink, shading to silvery white in center; grand giant variety of rare beauty; perfectly formed, pointed buds; full flowers of fine substance.

MRS. DAVID JARDINE—(H. T.) Delightful shade of bright, rosy pink, shading in outer petals to salmon pink; large, highly perfumed.

MADAME PHILLIPPE RIVOIRE—(H. T.) Beautiful apricot yellow and Nankeen yellow center, reverse of petals carmine; large, full and globular.

MAD. RAVARY—(H. T.) Beautiful clear orange yellow. Long pointed buds; flowers of fine form.

MAD. SEGOND WEBBER—(H. T.) Pure, rosy salmon, vivid center, large, full and perfectly formed flower, flowering freely and continuously on stiff erect stems.

MRS. A. E. WADDELL—(H. T.) A strong grower, foliage highly ornamental. Large, long pointed buds of a bright, rosy scarlet, a finely formed flower of a rich apricot or salmon color.

MY MARYLAND—(H. T.) Beautiful, bright pink, with paler edges; delightfully fragrant; robust grower and very free flowering; flowers full and good keeper. The best pink of its color; especially fine for florists, as well as being one of the grandest garden roses.

PHARISAER—(H. T.) Rose, shaded salmon, blooms freely; opens well, is large and of finest form. A free and constant bloomer.

PINK DRUSCHKI (Geo. Arends)—(H. P.) Moderately large full flower of beautiful bright pink. Is of free flowering habit and highly perfumed. Considered the best of the so-called pink Druschki.

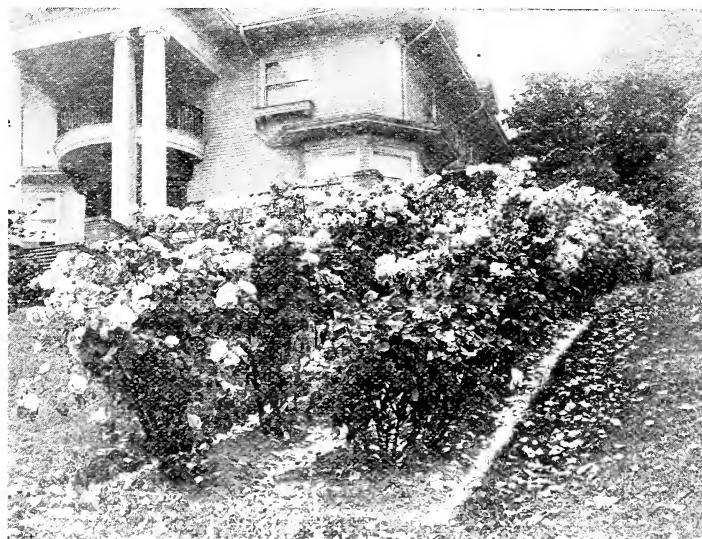
RADIANCE—A giant growing new pedigree rose of the greatest merit. The long, straight canes with their handsome foliage each terminate in a large full flower of globular form of great sweetness. Color, rich bright cerise, entirely distinct from any other known variety. One of the best roses in our collection.



Columbia Collection of Choice Roses

These include some of the most popular favorites for garden or cut flowers.

Young Plants 15c. Set of 12 sorts \$1.25. Two-year-old plants 35c; Set of 12 sorts \$3.00.



Double Hedge Row of
Mad. Car. Testout

APHISCIDE

The
Summer
Spray for

ROSES

Clean and
Effective

Quarts 25c
Gallons 60c

Ready for use

AMERICAN BEAUTY.—(H. P.) One of the largest, sweetest and best; color rich rosy crimson, shaded and veined in the most charming manner.

BELLE SIEBRECHT.—(H. T.) A true, solid pink of the richest shade, a rare color. The flowers are sweetly perfumed, and large, beautifully formed, of long, tapering shape, with high center, and when half blown the petals reflex in a graceful manner.

DEAN HOLE.—(H. T.) Beautiful silvery carmine, shaded bright golden pink; grand flowers of great substance, perfect in form; vigorous, free branching habit; continuous bloomer; one of the best exhibition roses. Gold medal. N. R. S.

KAISERIN AUG. VICTORIA.—(H. T.) A beautiful rose with elegant, large pointed buds and very large, full double flowers; color delicate creamy white; deliciously fragrant. A strong, healthy grower and constant bloomer.

LADY BATTERSEA.—(H. T.) This variety has long, oval buds, sharply pointed; very striking in form. The color is a bright, cherry crimson.

MAD. ABEL CHATENAY.—(H. T.) Color, beautiful rosy carmine, with darker shadings. Very richly colored. One of our finest varieties.

MADAME CAROLINE TESTOUT.—(H. T.) A grand rose of the La France type, but with flowers larger and finer. Color, bright satiny pink; very fragrant and free in bloom. The official "Carnival Rose."

MAMAN COCHET.—(T.) This is one of the most beautiful Tea roses we list. The color is a deep rosy pink, the inner side of the petals silvery rose.

RICHMOND.—(H. T.) The most vivid of ever-blooming red roses, buds and flowers of the most perfect and desirable form. The best of its color.

SOUV. DE PIERRE NOTTING.—(T.) Very large, perfectly full, of elegant form; has a beautiful long bud; color, orange yellow, bordered in carmine rose.

SOUV. DE PRESIDENT CARNOT.—(H. T.) Lovely shell-pink, delicately tinted with golden fawn on rich creamy white. Superb for bedding in open ground. Makes splendid buds for Summer cutting.

WHITE MAMAN COCHET.—(T.) White, grand substance, immense size, exquisitely fragrant and a free bloomer; buds long and pointed.

Favorite Collection Beautiful Roses

Young Plants 15c. Set of 12 sorts \$1.25. Two-year-old Plants 35 cents. Set of 12 sorts \$3.00.

BESSIE BROWN.—(H. T.) Creamy white; large, full and of very fine form. An exhibition rose.

CLARA WATSON.—(H. T.) A bright salmon rose tinted peach, good form; a vigorous grower.

ETOILE DE LYON.—(T.) Blooms freely, and every flower is a gem, equaling the Marechal Neil in size. Sweet scented; color, rich golden yellow.

GRUS AN TEPLITZ or VIRGINIA R. COXE.—(H. T.) Color, fiery crimson, with a dark velvety sheen, very fragrant. The freest blooming rose.

LA FRANCE.—(H. T.) Both flowers and buds are of grand size; color, a silvery rose, changing to pink. A general favorite. Sweetest of all roses.

LA DETROIT.—(H. T.) A beautiful shell-pink shading in the center to a soft rose pink. Reverse of outer petals creamy-flesh tint, strong, healthy grower; prolific bloomer; delightful tea fragrance.

MARIE VAN HOUTTE.—(T.) Of a fine faultless straw-yellow color; outer petals washed and outlined with a bright rosy carmine.

PAPA GONTIER.—(T.) Large and semi-double; a vivid cherry red color, shaded yellow, reverse of petals crimson.

PERLE DES JARDINS.—(T.) A clear, golden yellow, an indescribably rich and beautiful shade.

SAFRANO.—(T.) Bright apricot yellow tinged, orange and fawn.

VISCOUNTESS FOLKSTONE.—(H. T.) Flowers borne on strong stems, with thick foliage; color, delicately tinted flesh, almost white, with beautiful satin finish.

WHITE LA FRANCE.—(H. T.) This magnificent rose is a pure white La France, having just a breath of rose-tinted blush.



Prize-Winning Everblooming Roses

Price: Young Plants 15 cents each; 4 for 50 cents. Two-year-old plants 35 cents each.

AVOCA.—(H. T.) Deep scarlet crimson flowers of perfect form; very fragrant.

BETTY.—(H. T.) Beautiful coppery rose color, overspread with golden yellow. Deliciously fragrant; very large, fairly full and of glorious form. Superb decorative variety for the garden.

COUNTESS OF GOSFORD.—(H. T.) Clear salmon pink, base of petals shading to saffron yellow, very vigorous; perpetual bloomer.

FLORENCE PEMBERTON.—(H. T.) Creamy white, suffused pink. Flowers very large and full, of perfect form and wonderful substance.

FRANZ DEEGAN.—(H. T.) This beautiful yellow Hybrid Tea is a fine grower, having dark, leathery foliage and the good habit of throwing up numerous heavy canes, each one crowned by a glorious flower of large size.

GENERAL McARTHUR.—(H. T.) Dazzling crimson scarlet; a grand American rose of ideal form, delicious perfume and magnificent foliage. Blooms continuously in great profusion; the grandest red rose for garden or cutting.

HON. INA BINGHAM.—(H. T.) Bright pink, good substance, large, desirable garden rose.

J. B. CLARK.—(H. T.) One of the finest of new roses. Its glorious flowers are intense scarlet, shaded blackish crimson, of giant size, finely formed and fragrant; growth vigorous and upright.

KILLARNEY.—(H. T.) The new Irish Beauty. Color an exquisite shade of deep shell-pink lightened with silvery pink.

LADY ASHTOWN.—(H. T.) One of the finest pinks of a rich, deep, silvery tone; flowers large, perfect form; free blooming; vigorous.

MME. LEON PAIN.—(H. T.) A silvery flesh with yellowish orange center; very large and full; opens freely; vigorous.

PRINCE DE BULGAIRO.—(H. T.) Very vigorous grower, with large, bright green foliage; beautiful form of bud, flower very large and full. The outer petals are extremely large, of superb rosy flesh color; center of flower bright red, very fine and free.

PRES. W. R. SMITH.—(T.) (Maidenblush) A superb new rose of American origin, producing elegantly shaped buds and open flowers of much beauty. Of exquisite silvery pink color and sweetly perfumed.

RAINBOW.—Buds and flowers of large size; color a beautiful shade of deep pink, distinctly striped and mottled with brilliant crimson, elegantly shaded and toned with rich amber; very fragrant.

WHITE KILLARNEY.—(H. T.) The long pointed buds are of ideal form, petals purest white and heavy wax-like texture, remaining a long time in bud. Flowers full, beautiful and lasting when open, keep well. Valuable for florists.

Finest Hardy Perpetual Roses

For Eastern Oregon and Washington or in sections where the winters are severe, this magnificent collection of choice hardy roses will give splendid satisfaction, as they will thrive and bloom freely where the Tea and Hybrid Tea roses would not prove satisfactory.

Young Plants, 15c; Set of 14 sorts, \$1.40. Two-year-old Plants, 35c each; \$3.00 per dozen.

BARONESS ROTHSCHILD.—(H. P.) Flowers of immense size; color bright rosy pink.

CAPTAIN HAYWARD.—(H. P.) Immense flowers in great freedom, sweetly scented. Color deep glowing red shaded crimson. One of our finest red roses.

CONRAD F. MEYER.—(Rug.) Beautiful silvery pink, of grand form and delicious fragrance, hardy in any climate, its handsome foliage makes it most valuable for a flowering hedge.

FRAU KARL DRUSCHKI.—(H. P.) The white American Beauty. Makes splendid buds and immense flowers; perfectly double and delightfully fragrant; large, thick petals; bright, shining green leaves, elegantly veined; a healthy, vigorous grower, and a constant and abundant bloomer.

GLOIRE LYONNAISE.—(H. P.) Color, chamois yellow, deepest at the center, passing to creamy white; large, full, sweet and very distinct.

HUGH DICKSON.—(H. P.) Glowing crimson-shaded scarlet; large, full, perfectly formed, delightful perfume, strong grower, perpetual bloomer (should be cut back freely). After careful comparative tests, we believe Hugh Dickson is the best hardy red garden rose to date.

GENERAL JACQUEMINOT.—(H. P.) Bright, shining crimson; very rich and velvety.

MRS. JOHN LAING.—(H. P.) Very free flowering; color, a soft, delicate pink, with satiny tinge.

MABEL MORRISON.—(H. P.) Of purest white; velvety in appearance; petals thick and shell-shaped; very double and rounded.

MARGARET DICKSON.—(H. P.) Magnificent form; white, with pale flesh center; petals very large, shell-shaped, and of great substance; fragrant.

MRS. R. G. SHARMAN CRAWFORD.—(H. P.) Lovely deep rose pink, outer petals shaded pale flesh, base white, a new and unique shade. Large perfect flowers, free blooming; a grand Autumn rose.

PAUL NEYRON.—(H. P.) Deep, shining rose, double and handsomely formed; blooms freely, the largest variety in existence.

PRINCE CAMILLE DE ROHAN.—(H. P.) Very dark, rich, velvety crimson, passing to intense maroon, shaded black; regarded as the best of its color.

ULRICH BRUNNER.—(H. P.) A magnificent rose, extra large, bold flowers, full and globular; petals large and of good substance; color, rich, glowing crimson, elegantly flamed with scarlet.

Baby Rambler or Dwarf Polyanthus Roses

Price, Young Plants, 15c each; set of 6 sorts, 75c; 2-year-old plants, 35c each. Except as noted.

CECILE BRUNNER.—(Poly.) Bright, rose, yellowish in center; very sweet; dwarf polyanthus.

INK BABY RAMBLER.—(Mrs. W. Cutbush) Similar in growth with the other Baby Ramblers, but with clusters of pretty double bright pink flowers; freely produced in panicles, always in bloom.

BABY RAMBLER.—(Dwarf Bush Type.) A dwarf Crimson Rambler not over 18 inches high, producing large trusses of light crimson flowers; clean dark green foliage, it will flower the year around.

RNA TESCHENDORF.—A valuable sport from Mad. N. Levavasseur. Color, deep crimson which does not fade.

CATHERINE ZEIMET.—Small, double, pure white flowers. A free and continuous bloomer.

GEORGE ELGER.—(Dwf. Poly.) Free blooming, erect growth, golden coppery yellow, a fine bedding Rose. **Each, 40c**

PERLE D'OR.—Dainty Nankeen yellow buds with orange center, produced in clusters, very beautiful.

JEAN DE ARC.—Miniature double white flowers in large clusters surmount the plant all summer long.

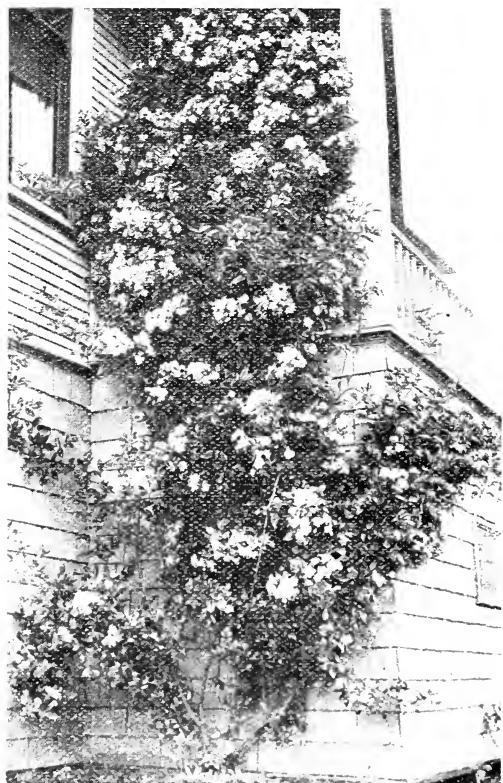
JESSIE.—Bright scarlet shaded crimson. Flowers double and in great clusters. Very free in growth and bloom. Its brilliant color under even the hot sun is its chief characteristic. Very lasting.

ORLEANS.—(Poly.) Clusters of bright rosy red flowers, with centers shaded to pure white. A very valuable and distinct addition to this class of roses.



CLIMBING AND PILLAR ROSES

Young plants, 15c each; 4 sorts for 50c, except varieties marked * which are supplied in 2-year-old only. Two-year-old bushes, Field Grown, 35c each; \$3.00 doz. (except as noted.)



AMERICAN PILLAR — WICH. — A beautiful bright pink with yellow anthers. The splendid large single flowers are borne in great clusters.

BEAUTY OF GLAZENWOOD — Bronzed yellow or copper and fawn color. One of our grandest climbing roses. Very hardy and a free bloomer.

CLI AMERICAN BEAUTY — This variety retains the rich crimson color and the same delightful fragrance of the American Beauty Rose — very free bloomer.

CLIMBING BELLE SIEBRECHT — (C. H. T.) Flowers identical with bush type; vigorous climber; hardy.

CLIMBING CECIL BRUNNER — Strong rampant climber, ever-blooming clusters of pretty pink flowers, especially beautiful in bud. A gem among climbing roses.

***CLIMBING FRAU KARL DRUSCHKI** — Identical with the bush type — a good pillar rose.

Each, 50c

CLIMBING KAISERIN (Mrs. Robert Peary) — Flowers fine, ivory white, of heavy texture, and large size.

CLIMBING LA FRANCE — Identical with the well known La France; vigorous climber.

***CLIMBING LADY ASHTOWN** — Strong, vigorous climbing sport of this well-known valuable rose.

Each, 50c

CLIMBING MADAME CAROLINE TESTOUT

—Covered during the whole season with immense globular flowers of the same beautiful shade of pink as seen in the bush sort.

CLIMBING METEOR — Rapid grower; rich, dark, velvety crimson flowers.

CLIMBING WHITE MAMAN COCHET — The introducer describes this as identical with the bush type; vigorous free bloomer.

DUCHESS D'AUERSTADT — A splendid climber of the Marechal Nell type, being a more vigorous and hardy rose. Color is a fine rich yellow, flowers are large, full and open freely.

Each, 50c

DR. VAN FLEET — A new Hybrid Climber of great beauty, bearing freely. Large, fully double blooms of a dainty flesh pink with rosy center, flowers of perfect form with reflex petals and are carried on long stems, making this a desirable variety for cutting. Foliage is luxuriant bronze green. A cross of Pres. Carnot and Wichuriana.

Each, 40c

GAINSBOROUGH — Graceful flower of dainty shell pink color and satiny finish. Hardy, ever-blooming and a free climber.

GLOIRE DE DIJON — An old favorite, noted for its free flowering, its delicate tea scent, and its shades of color, being a blending of amber

LA MARQUE — Flowers of good size, borne in large clusters; color, pure white.

MADAME ALFRED CARRIERE — Extra large, full flowers, very double and sweet, and a most profuse and persistent bloomer; color, rich, creamy white, faintly tinged pale yellow and blush.

MARECHAL NEIL — A magnificent deep golden yellow variety: so famous as to need no description: grown the world over for its immense yellow flowers; the finest rose of its color in existence.

Each, 40c

CLIMBING PAPA GONTIER — (T.) A "Native Sport" from the favorite bush "Papa Gontier."

PINK CHEROKEE — A grand new climbing rose, of rare beauty and undoubted merit and entirely distinct from any other climbing rose. The lovely single blossoms are 3 to 5 inches in diameter, saucer shaped and of a beautiful shade of light pink.

REINE MARIE HENRIETTE — A strong, vigorous grower; flowers large, full, and of fine form; color, glowing crimson, elegantly shaded.

REVE D'OR (Climbing Safrano) — Color apricot yellow, with orange and fawn tints; petals of superb and delicate texture.

RED CHEROKEE — A gleaming shade of red. Growth and habit similar to pink and white Cherokee.

SILVER MOON — A magnificent white climber, cross of Wichuriana and Cherokee, large, semi-double blooms of good substance with golden stamens. Flowers are carried on long stems. Foliage is abundant, delightfully fragrant, of a bronze green color and is immune to mildew.

Each, 40c

WHITE CHEROKEE — Strong erect grower with dark glossy leaves. Large pure white flowers borne in great profusion.

WILLIAM A. RICHARDSON — Color, rich coppery yellow, flushed with carmine; a very beautiful variety, having few equals.

THE POPULAR RAMBLER ROSES

The Rambler Roses are strong, vigorous climbers, growing ten to twelve feet high in one season. They bear immense clusters of beautiful, fragrant flowers.

Price: Young plants, 15c each; 4 sorts for 50c;
two-year-old plants, 35c each

FLOWER OF FAIRFIELD—Ever-blooming crimson rambler, brilliant crimson, base of petals white, a great improvement over the old type.

PHILADELPHIA RAMBLER—An improved type of the favorite Crimson Rambler; color, deeper, more brilliant and lasting; much earlier than the old type; vigorous, luxuriant foliage, not so susceptible to mildew.

VEILCHENBLAU (Blue Rambler)—A seedling from Crimson Rambler with semi-double flowers produced in very large trusses. The flowers first open pink, but quickly change to a violet, or steel blue.

DOROTHY PERKINS—Polyanthus type; color a beautiful bright shell pink; flowers large, very double; petals prettily crinkled; blooms in large clusters of 30 to 40; a splendid keeper.

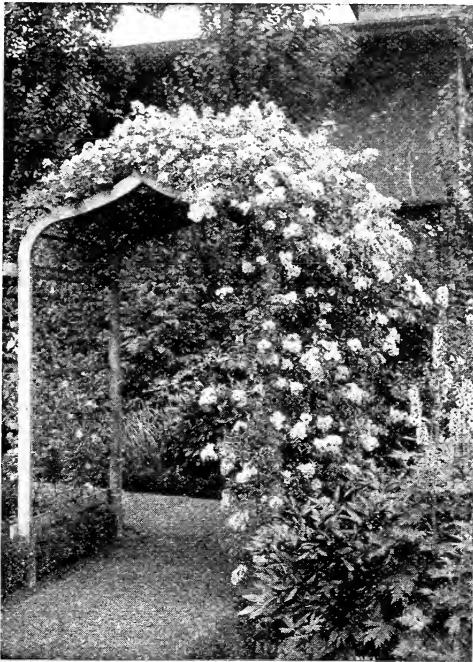
RED DOROTHY PERKINS—In this grand new sort we have a fine crimson rambler, but with the glossy green foliage of Dorothy Perkins, therefore never troubled with mildew. Flowers very double, in immense lasting clusters.

TAUSENDSCHEIN—A lovely shade of soft pink, free blooming; a vigorous climber with splendid foliage.

YELLOW RAMBLER—Same type and growth as Crimson Rambler, except for color, which is a pure, bright yellow.

LADY GAY—Cherry pink, fading to softer tones. Closely resembles Dorothy Perkins although flowers are slightly larger.

WHITE DOROTHY—As its name indicates, it is a sport from Dorothy Perkins, possessing all the fine qualities of that grand variety, but having pure, snow white flowers.



How to Grow Roses

A little book for
Rose lovers

Free on
Request

PRICE: Tree or Standard Roses, \$1.00 to \$1.50 each, according to size of head.

Tree roses are budded, or grafted on hardy rose stocks about four feet high. They soon make good sized heads, forming a small tree; especially desirable for planting as single specimens, in backgrounds or rows along walks or driveways.

Order any color or variety you wish and we will send it or give you as good a substitute as possible. We aim to have the following varieties in stock:

Dean Hole
Mad. Ravary
Betty
Cll Cecil Brunner
Franz Deegan
Lyon
La France
K. A. Victoria

Mad. Caroline Testout
Ulrich Brunner
Grus an Teplitz
Papa Gontier
Perle des Jardines
Maman Cochet
Maman Cochet White
Mrs. Jno. Laing

F. K. Druschki
Baby Rambler
Hugh Dickson
Gen. McArthur
Dorothy Perkins
Mad. Abel Chatenay



Alphabetical List of Roses

	Price	Page		Price	Page		Price	Page
Admiral Ward	\$1.00	102	Hugh Dickson	\$.35	107	Mabel Morrison	\$.35	107
American Beauty	.35	106	H. V. Machin	.75	103	Maman Cochet	.35	106
Augustus Hartman	.75	102	Irish Elegance	.40	105	Margaret Dickson	.35	107
Austrian Copper	.50	105	Irish Fireflame	.60	105	Marie Van Houtte	.35	106
Autumn Tints	.50	102	Irish Simplicity	.50	105	Marquis de Sinet	.50	104
Avoca	.35	107	Jean De Arc	.35	107	Melody	.50	104
Baby Ramblers	.35	107	Jessie	.35	107	Mildred Grant	.40	105
Baroness Rothschild	.35	107	J. B. Clark	.35	107	Milday	.40	105
Belle Siebrecht	.35	106	Jonkheer J. L. Mock	.40	105	Mme. Leon Pain	.35	107
Bessie Brown	.35	106	Joseph Hill	.40	105	Moss Roses	—	109
Betty	.35	107	Juliet	.50	104	My Maryland	.40	105
British Queen	.50	104	Kais. Aug. Victoria	.35	106	National Emblem	1.25	103
Capt. Hayward	.35	107	Katherine Ziemet	.35	107	Old Gold	.60	103
Cecile Brunner	.35	107	Killarney	.35	107	Ophelia	.75	103
Clara Watson	.35	106	Killarney Queen	.40	105	Orleans	.35	107
Cli. Roses	—	108	Lady Alice Stanley	.50	104	Papa Gontier	.35	106
Conrad F. Meyer	.35	107	Lady Ashton	.35	107	Paul Neyron	.35	107
Constance	1.00	103	Lady Battersea	.35	106	Perle des Jardins	.35	106
Countess Clanwilliam	.75	102	Lady Hillington	.50	104	Perle D'Or	.35	107
Countess of Gosford	.35	107	Lady Mary Ward	.75	103	Pharisaer	.40	105
Countess of Shaftesbury	.50	104	Lady Roberts	.40	105	Pink Druschki	.40	105
Dean Hole	.35	106	La Detroit	.35	106	Pres. W. R. Smith	.35	107
Dorothy Page Roberts	.40	105	La France	.35	106	Prince de Bulgaire	.35	107
Duchess of Sutherland	.75	103	Le Progress	.40	105	Prince C. de Rohan	.35	107
Duchess of Wellington	.50	104	Louise Cath. Breslau	.50	104	Princess Mary	1.25	103
Edith Part	.50	104	Lyon	.50	104	Queen Mary	.75	103
Edward Mawley	.50	104	Los Angeles	2.00	103	Radiance	.40	105
Erna Teschendorf	.35	107	Mad. Abel Chantenay	.35	106	Rayon D'Or	.50	104
Etoile de Lyon	.35	106	Mad. Car. Testout	.35	106	Rainbow	.35	107
Florence Pemberton	.35	107	Mad. Edouard Herriott	.60	103	Red Letter Day	.75	103
Farben Koenigin	.40	105	Mad. Melaine Soupert	.50	104	Rambler Roses	—	109
Franz Deegan	.35	107	Mad. Phillippe Rivoire	.40	105	Richmond	.35	106
Frau K. Druschki	.35	107	Mad. Ravary	.40	105	Safrano	.35	106
Gen. Jacqueminot	.35	107	Mad. Segond Webber	.40	105	Souv. de P. Notting	.35	106
Gen. McArthur	.35	107	Mrs. Aaron Ward	.50	104	Souv. de Pres. Carnot	.35	106
George Dickson	.50	104	Mrs. A. R. Waddell	.40	105	Sunburst	.50	104
George Elger	.40	107	Mrs. Chas. E. Allan	.50	104	Tree Roses	—	109
Gloire Lyonnaise	.35	107	Mrs. Cornwallis West	.50	104	Ulrich Brunner	.35	107
Gruss an Teplitz	.35	106	Mrs. David Jardine	.40	105	Viscountess Folkestone	.35	106
Hadley	1.00	103	Mrs. David McKee	.50	104	White Killarney	.35	107
Harry Kirk	.40	105	Mrs. E. J. Holland	.50	104	White La France	.35	106
Heinrich Munch	.40	105	Mrs. Foley Hobbs	.50	104	White Maman Cochet	.35	106
Hon. Ina Bingham	.35	107	Mrs. John Laing	.35	107			
Hoosier Beauty	1.25	103	Mrs. R. G. S. Crawford	.35	107			

Flower Pots

We carry a large and complete line of standard red clay Flower, Fern, Azalea Pots, Bulb Pans and Hanging Baskets and can make prompt deliveries at right prices.

Florists, nurserymen and growers should send list of requirements for Special Prices.

FLOWER, FERN, AZALEA POTS OR BULB PANS ALL SAME PRICE.

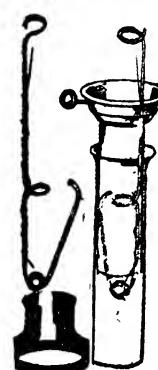
Size	Each	Dozen	Saucers
2-inch	\$0.02	\$0.20	Each
3-inch	.03	.30	
4-inch	.04	.40	\$0.03
5-inch	.07	.70	.04
6-inch	.10	.90	.05
7-inch	.12	1.20	.07½
8-inch	.15	1.75	.10
9-inch	.25	2.50	.15
10-inch	.40	—	.20
12-inch	.60	—	.35
14-inch	1.50	—	1.00
16-inch	2.25	—	1.25

HANGING BASKETS

These are well made and are better than wire baskets, as plants do not dry out so quickly.

8-inch	Each \$0.30	Doz. \$3.00
10-inch	" .40	" 4.25
12-inch	" .60	" 6.50

NOTE.—At above prices we will pack the pots carefully, but buyer must pay freight or express charges. We buy in carload lots and the wholesale trade, florists and nurserymen, are requested to send for special prices, stating number wanted.



Foster Rose Tubes

For Rosarians and Cut Flower Exhibitors

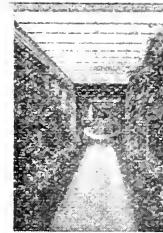
FOR SHOWING ROSES

The Foster Exhibition tubes with adjustable clips, enable you to transfer flowers from one position to another without disturbing their arrangement. A wire holds the flower firmly in any desired position. Tubes afford an ample supply of water close to the rose. Used at all English shows.

Price, each, 25c; doz., \$2.75



Ornamental Climbing Vines



Clematis

Clematis is one of the most beautiful and useful climbers, the several varieties adapting themselves to every requirement. Their magnificent flowers, borne in great profusion in beautiful shades of lavenders, purples, reds and white, make them especially attractive. Clematis requires a rich loamy soil, but manure should not touch the roots. Cut out the weak and surplus branches in the spring, and tie the vine up well to its support. We offer the best of the hardy large flowering varieties.

DUCHESS OF EDINBURGH.—Double, white.

LAWSONIANA.—Light blue.

VILLE DE LYON.—Red.

RAMONA.—Beautiful lavender, best of its color.

MONTANA.—White, anemone-like flowers, May to July; very hardy, rapid grower.

HENRYI.—Fine, large, creamy white flowers; a strong grower and very hardy.

JACKMANII.—Intense violet purple, with a rich velvety appearance; distinctly veined. The most popular and finest Clematis we have.

MAD. ED. ANDRE.—A beautiful new variety; flowers red, large and abundant.

Choice plants of above sorts, each, 60c

Large plants, each, 75c to \$1.00, postpaid

CLEMATIS PANICULATA.—A strong, rapid and vigorous grower; it produces sheets of medium-sized, pure white flowers of the most pleasing fragrance; it is perfectly hardy and well adapted for covering trellises or fences.

Choice plants, each, 35c to 40c; large, 50c to 60c.

Honeysuckle

BELGIAN.—Flowers yellow, blotched with red above; blooms all summer, fragrant. Each, 50c

JAPANESE.—Evergreen; fragrant flowers, white changing to yellow. Each, 35c

HALL'S.—Evergreen, very popular; white turning to yellow. Each, 50c

Jasmine

JASMINE NUDIFLORUM.—Branches drooping, enveloped with bright yellow flowers before leaves appear. Each, 50c

GARDENIA FLOWERED, CAPE JASMINE.—Free-blooming, pure white flowers, star shaped; foliage delicate; evergreen. Each, 50c

“Diamond” Fancy Lawn Mixture

Growing tests have proved our “Diamond Quality” Lawn Grass to give satisfactory and permanent results, being specially prepared for our Western soils and climate, and will produce an evergreen velvety turf; it is free from chaff and foul seeds, weighing 23 pounds to the measured bushel. This is a guarantee of clean, plump seeds, as cheap chaff seed is very light.

Price, per lb., postpaid, 45c; freight or express, not prepaid, per lb., 35c; 10 lbs., \$3.25
Sow one pound to 400 square feet, 10 to 15 pounds to a 50-foot lot.

WRITE US FOR SPECIAL MIXTURES FOR TERRACES, SHADY PLACES, DRY OR WET LAND.

Wistaria

W. SINENSIS (Chinese Wistaria).—One of the most elegant and rapid growing of all climbing plants; grows 15 to 20 feet in a season; has long pendulous clusters of pale blue flowers in May and June and in Autumn.

Choice plants, each, 35c to 50c; large, 75c to \$1.50.

WISTARIA CHINENSIS VARIEGATED.—

Yellow variegated leaves, pretty after flowering for the beautiful speckled foliage which is very attractive among other green foliage. Flower, same as common Chinese Wistaria.

Each, 75c to \$1.50

W. MULTIJUGA.—Similar to Wistaria Sinensis except in color of flowers which are dark violet-blue, borne in very long racemes. Each, 75c to \$1.50

WISTARIA MULTIJUGA PINK.—Same as above only flowers are light pink. A very rare sort.

Each, 75c to \$1.50

W. BRACHYBOTRYS.—White flowering.

Each, 75c to \$1.50

Ampelopsis

VEITCHEI “Boston Ivy.”—Leaves glossy green, coloring bronze in fall; flowers small; berries deep blue. Each, 35c

QUINQUEFOLIA “Virginia Creeper.”—Common American Ivy. Each, 35c

Trumpet Vine

BIGNONIA GRANDIFLORA (Trumpet Vine).—Strong climber; deciduous; flowers orange scarlet. Each, 50c

BIGNONIA TWEEDIANA.—Evergreen clinging; flowers canary yellow. Each, 50c

Dutchman's Pipe

ARISTOLOCHIA SIPHO.—A handsome bright green luxuriant vine, having large foliage and brownish, pipe-shaped flowers. A strong, rapid grower, valuable for trellis, porch or arbor.

Strong plants. Each, 50c

KUDZU VINE.—A very rapid climber with large heavy foliage; bearing purplish flowers in racemes; during late August.

Strong roots, 35c; doz., \$3.00

Pink Passion Vine

A rapid growing, attractive vine, flowering freely throughout the summer and fall. Plant out in April or May. Each, 50c

English Ivy

Large, thick, shining, leathery leaves; evergreen. Each, 25c



"DIAMOND QUALITY"

DAHLIAS FOR 1917



A corner
of our
Dahlia Field
in the
"Paeony
Section"

All new
varieties
must first
stand our
field test
before they
are offered
for sale.



IN THE SELECTION OF DAHLIAS only those varieties of known merit should be considered. The great Dahlia Specialists of Europe and America have set a high standard, established by their years of comparative trials and you will have greater satisfaction and better values from their tested varieties which we offer, and which have been officially recognized, than you can possibly obtain from untried varieties of doubtful origin.

OUR TRIALS ARE VERY EXTENSIVE and are conducted by a practical Dahlia expert of wide experience. All tests are made in the field without irrigation and the Dahlias we list represent the "survival of the fittest," the best of the standard varieties and meritorious novelties of the most famous producers. varieties that are recognized the world over. They are true to name, erect bloomers and good keepers.

IT IS IMPORTANT that your Dahlias be recognized varieties and true to name. If not, you cannot hope to exhibit them successfully.

CULTURE

DAHLIAS will grow to perfection in any good garden soil, preferably one that contains a little sand. Plant as soon as the frost is gone and the ground warm, cutting the tuber to a single strong eye, and placing it on its side at a depth of about 6 inches, in ground that has been previously well cultivated. An excellent way to start Dahlias is to sprout the tubers in a green house and set out the rooted plants. These are generally believed to give more and better flowers, but is more trouble than planting the bulbs. Rows should be four feet apart, plants 18 inches to 3 feet apart in the row, depending on whether planted for a hedge or for specimen plants. Cultivate thoroughly until ready to bloom, then deep tillage must cease and only the surface be lightly stirred, as deep cultivation at this time is fatal to blooming. Tall varieties should be staked.

If you use commercial fertilizer, do not apply until the plant starts growth, then work it into the top soil, 5 or 6 inches from the plant. Bone meal is an excellent fertilizer for Dahlias but must be applied early, as it is slow in action. When the plant is well up, say 6 to 10 inches, pinch off the top, leaving 2 or 3 joints. This will cause it to branch out into a more sturdy, bushy growth. Water freely.

Group of Cactus Dahlias

REMEMBER WE CAN SUPPLY ANY VARIETY IN COMMERCE, GROWING MANY THAT WE DO NOT LIST. IF WE DO NOT have what you want, we can get it for you, true to name.



Prepaid in United States only—Canadian, Alaskan and Foreign Postage Extra.

KALIF
Type of Flower
No. 7



FINEST CACTUS DAHLIAS

FROM comparative tests in the field we have selected the following as being the best of their types and color. This list contains many of the newest Dahlias as well as the best of the older ones.

The two splendid new Dahlias, "KALIF" and "Garibaldi," should be in every collection.

GARIBALDI

Color, a brilliant rich scarlet, darker toward center with back of petals shading lighter. Large shapely flowers with long curled and twisted petals. Very free and lasting.

Each, 75c

KALIF

A giant flower, color a brilliant pure scarlet. The immense blooms are freely borne on long, strong stems and make a wonderful display. **Kalif** was awarded the highest honor of the German National Dahlia Society.

Each, 75c

PRICES 15c DAHLIAS \$1.50 dozen; 20c Dahlias \$2.00 dozen; 25c Dahlias \$2.50 dozen
35c DAHLIAS \$3.00 dozen; 40c Dahlias \$4.00 dozen; 50c Dahlias \$5.00 dozen

Write for Prices by the Hundred.

Red and Shades

ARISTID GURTNER.—1—Flowers of enormous size, petals curved inward, color brilliant orange scarlet. Each, 35c

AUGENWEIDE.—1—Translated this means "a feast for the eyes." Color is bright rose with deep rose center, grows erect on fine stems, a full shapely flower. Each, 35c

BISMARCK.—1—A most intense bright red, petals slightly incurved, perfect cactus type, has fine carriage of bloom well above the foliage, is early and always covered with flowers. Each, 35c

DORNROSCHEN.—1—Unique and remarkable, variable from carmine to brilliant red, to delicate pinks with blush suffusions; large and free blooming; long stems, erect; compact bush. 35c

DREADNAUGHT.—1—A giant flower, of graceful form, full, with fine claw-shaped petals; color, deep crimson maroon; a good keeper and splendid flower for exhibition. Each, 35c

ELLA.—2—A grand shade of deep rose of splendid cactus form. Long strong stems. Without a rival in the deep pink shades. Each, 35c

ERB PRINCESSEN REUSS.—3—A superb shade of blood-red crimson self, the best of its color of finest cactus form, one of the most satisfactory and pleasing reds. Each, 35c

H. W. SILLEM.—(Cardinal King).—1—Rich cardinal red, of perfect form, grand exhibition variety. Each, 25c

JOHN PEELE.—1—A deep rich crimson with lighter suffusion towards center; a distinctive form of true cactus type, a splendid keeper, with fine stems. Each, 55c

MARIE PURRIER.—1—Extra large brilliant blood-red flower of fine full form, with slender dainty incurved petals; a free bloomer of fine habit of growth, flowers erect, good keepers. Each, 50c

MINNIE BIRGLE.—3—One of the most pleasing bright, rich, red cactus dahlias ever produced; holds its color well, has fine stems, and as a cut flower is very popular with florists. Each, 35c

MATCHLESS.—3—Dark rich crimson. Each, 20c

MRS. A. P. HOWARD.—3—Color fiery red with satiny sheen that lends unusual attractiveness to the large graceful flower, fine stems, vigorous and free blooming. Each, 25c

MRS. FERDINAND JEFFRIES.—7—Deep velvety garnet red, the long curved and twisted petals forming a magnificent flower of rare grace and beauty; one of the largest dahlias. Each, 50c

MRS. HENRY WIRTH.—3—Rich geranium red, very free flowering. Each, 25c

MRS. SUZANNE B. HOLMES.—3—A superb dark crimson-maroon of finest form and good substance. Good stems. One of the most beautiful of all dark Cactus Dahlias. Each, 35c

M. INMAN.—1—A bright orange vermillion of largest size and finest cactus form; long, narrow petals, an exhibition variety. Each, 50c

OLYMPIC.—1—Deep rich crimson; very large, petals incurved and of great depth; a strong grower. Fine exhibition dahlia. Each, 50c

OTHELLO.—3—A glorious full, large flower of deepest richest crimson, center almost black; finest true cactus form; one of the earliest. Each, 35c

PROGENITOR.—2—Bright carmine; fringed petals; a free bloomer of great beauty. Each, 20c

RENE CAYEUX.—1—Brilliant geranium red. Early, continuous bloomer with flowers borne on good stiff stems well above the foliage. Plant is of dwarf compact growth suitable for hedge. Each, 25c

SIGNAL.—3—Brilliant crimson scarlet; height 24 inches; flowers large, of fine form; free blooming. Each, 25c

UNCLE TOM.—3—Dark maroon, medium size; quite free. Each, 15c

Variegated and Shaded

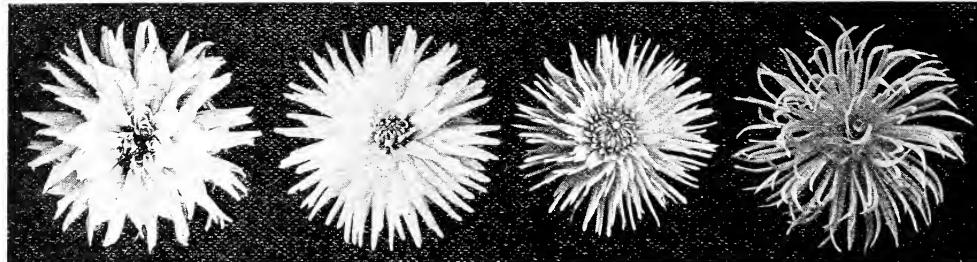
COMET.—2—Extra large, silvery rose, marked crimson, a very free bloomer, of good habit. Each, 25c

CURIOSITY.—1—Large full white flower with claw shaped petals, penciled rose carmine; a very beautiful, graceful and free blooming flower; good stems. Each, 50c

H. L. BROUSSON.—1—The extremely long and slender petals are daintily twisted and incurved in a most pleasing way. Color is salmon-rose on a pale yellow ground, showing lighter center and tips. Special awards. Price, 75c

RELIABLE.—1—A blending of yellow, brick-red and salmon; truly a grand flower. Each, 25c

CACTUS DAHLIAS—Illustration shows flower types



No. 2

No. 3

No. 4

No. 1

Yellow and Shades

CAPSTAN.—3—Orange-scarlet and apricot; one of the finest for cut flowers; dwarf-habit, free-bloomer, large perfect flowers. **Each, 15c**

DRAGON D'OR.—2—A magnificent deep rich yellow of mammoth size. Petals broad and deeply cleft at tips. **Each, 25c**

DR. ROY APPLETON.—1—The finest of the straight petal type, of perfect starlike form; color, a beautiful light lemon yellow, merging to light salmon, lighter at tips; plants of good habit with long stems and one of the best for exhibition purposes. **Each, \$1.00**

ENCORE.—1—A pleasing shade of orange-buff, incurved petals, strong stems and perfect habit of growth. **Each, 35c**

FLOSSIE RIDEOUT.—1—Pure deep purple with finest needle-like petals, sometimes with distinct pure white tips. **Each, 35c**

GELBER PRINZ.—3—A grand new yellow of Marshal Neil shade, a color never before obtained in a Dahlia. Flowers are extra large, and graceful form, full centers, carried on large stems and keep well, both cut and on the bush. **Each, 60c**

GENOVEVA.—1—An elegant distinctive flower of a pale canary yellow, with a beautiful faint greenish tinge suffusing the entire flower, which is large, with well filled incurving petals. **Each, 35c**

GOLDEN WAVE.—1—A magnificent clear deep yellow, of splendid form and largest size; petals are long and narrow, flowers full and symmetrical; one of the very best yellows. **Each, 50c**

GOLD REGEN.—1—True cactus type, twisted petals, deep bright yellow; long stiff stems; a splendid flower. **Each, 40c**

IVERNIA.—1—Beautiful form, of all around excellence; bright salmon fawn. **Each, 35c**

JOHANNESBERG.—1—A giant golden yellow of great brilliancy; the shapely, graceful flowers being well poised on long stems; a variety of the greatest merit. **Each, 50c**

MODELLE.—3—A beautiful clear waxy yellow, with a delicate plum blush sheen over tips of petals; a dainty, lovely flower of large size, perfect form, petals incurving, erect on long stems; one of the best bloomers and most vigorous growers. **Each, 50c**

MRS. WM. E. RUSSE.—7—A most pleasing yellow with chamois center, the broad twisted petals edged plum shading to old rose, extra fine stems; an unusually attractive well finished flower. **Each, 50c**

NEW YORK.—1—Immense flower with regularly incurving narrow petals. Color, orange yellow center shading off to deep bronze salmon. Strong stems. **Each, 35c**

WODAN.—7—Magnificent flowers of largest size and pleasing form, color orange rose shading to old gold center, very vigorous. **Each, 50c**

Lavender

INDOMITABLE.—1—Long, very narrow petals, perfectly incurved; in color a rosy mauve; a beautiful, erect flower on good stems. **Each, 50c**

MAUVE QUEEN.—1—A beautiful true lavender with lighter center, full flower with finely quilled petals beautifully formed, incurved. **Each, 35c**

Pink and Shades

BRITTANIA.—3—Beautiful salmon-pink. **Each, 25c**

COUNTESS OF LONSDALE.—3—Rich, rosy-salmon, very floriferous; one of the best. **Each, 25c**

FREDERICK WENHAM.—1—One of the largest cactus dahlias yet raised; in form the flowers are partially incurved. Growth upright; strong stems; color warm fawn-pink, with soft salmon at the center. **Each, 50c**

GALATHEA.—2—A delicate soft flesh pink of finest form; a flat petaled type listed in the cactus class by the originator. Galathea is a pleasing and most desirable addition. **Each, 60c**

GONDOLA.—1—Beautiful shade of pink; with bright old-gold penciling; large, with long incurved twisted petals, lighter at tips. **Each, 35c**

GWENDOLINE TUCKER.—1—A dainty rose color with lighter center, a finely formed, full flower, petals incurved, carried on long, strong stems. An exhibition variety. **Each, 50c**

HELENE.—3—Delicate, clear pink, with rich, creamy center, a beautiful flower on very long stems and the greatest bloomer of all. **Each, 15c**

MARGUERITE BOUCHON.—4—Brilliant rose with white center and white tips; very strong stems. A dainty, beautiful flower of large size. **Each, 35c**

KRIEMHILDE.—3—Blush pink; a prize winner; one of the finest dahlias. **Each, 20c**

MRS. J. B. CHAFFEY.—1—A deep rich rose pink of superb form, flowering abundantly throughout the season and is of great value for cutting; stems strong, upright and long—a great beauty under artificial light. **Price, 35c**

MRS. WILLIAM H. TAFT.—1—Color the lovely pink of La France rose, with lighter center; a large handsome flower with fine petals beautifully incurved: vigorous and free. **Each, 35c**

White

THE BRIDE.—3—A pure, glistening milky white, of great substance and of full rounded symmetrical form, grows erect, keeps well cut and the golden variegated foliage is very attractive. **Each, 25c**

GUNTHER.—2—Pure white with broad twisted petals on stiff stems. Large and beautiful. **Each, 25c**

LAWINE.—3—Fine large white, faint blush tint, erect, free-flowering; extra good. **Each, 25c**

RHEINKOENIG.—2—(King of the Rhine) Dazzling snow-white of magnificent form and largest size; although large, the flowers are daintily formed and of splendid substance, carried above the foliage on fine long stems and are very lasting when cut. **Each, 35c**



THE NUMBERS OF THE FLOWERS refer to the various types, and we have marked the Dahlias we list with the number, illustrating its type or form. This will aid in your selection.

Show Dahlias

The show or "quilled" Dahlia is the popular old fashioned type and has been so improved that many of our most magnificent flowers belong to that class.

A. D. LIVONI.—This grand old variety still remains the best pink of its type. **Each, 15c**

DIADEM.—Brilliant rich crimson of fine full form, free blooming, has good stems. **Each, 25c**

DREER'S WHITE.—A magnificent white of largest size and great purity, long stems. The best of its color. **Each, 35c**

FRANK SMITH.—Very dark rich red with light tips, variable; a fine full flower, good grower. **Each, 15c**

GOLDEN BOW.—A new, rich yellow of splendid form; has long stems, large flowers and blooms continuously. **Each, 35c**

GRAND DUKE ALEXIS.—A giant glistening, clear white flower, with the daintiest of lavender flakes or markings near center. **Each, 25c**

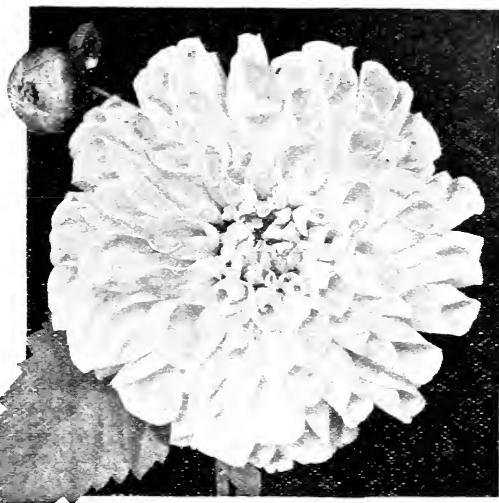
JOHN BENNETT.—Yellow, deeply edged scarlet; a very free bloomer and a desirable color. **Each, 25c**

LUCY FAWCETT.—Light canary yellow, with penciling of clear magenta. Large and very free. **Each, 20c**

MRS. ROOSEVELT.—A beautiful, delicate pink, of immense size, fine stems, perfect form, large and double, superb. **Each, 35c**

NORMA.—Pure old gold with delicate plum suffusion that adds to its brilliancy; a full, well formed flower on good stems. **Each, 25c**

THOS. PENDRED.—Finest and largest of the pure yellows, a rich soft shade of golden yellow; perfect form, blooms freely and continuously, even in driest weather. **Each, 25c**



Mrs. Roosevelt

W. W. RAWSON.—Pure white overlaid with amethyst blue. Petals are quilled toward center but more open at outer part. The massive flowers often measure 7 inches in diameter; borne on stiff erect stems. **Each, 50c**

YELLOW KING.—Magnificent pure rich yellow of large size and splendid form. Yellow King is truly a "King" in its class and should be added to every collection. **Each, 75c**

Decorative Dahlias

A Magnificent Collection of the Best of this Superb Type

DELICE.—(Decorative.) Lovely shade of pink, broad petaled flowers with large stiff stems, very floriferous. *A fine, lasting cut flower.* **Each, 35c**

JEANNE CHARMET.—A beautiful lilac pink; each petal edged with white; flowers are very large and stems exceptionally long; very fine. Height, 4 feet. **Each, 25c**



Le Grand Manitou

GAIETY.—A superb new decorative, vivid scarlet, heavily marked with pure white; stems are long and flowers are produced freely; excellent for cut flowers. **Each, 35c**

LAVENDER QUEEN.—Clear, soft lavender; petals deeply serrated. **Each, 15c**

LE GRAND MANITOU.—(Decorative.) Immense perfect flowers, color a white ground splashed and striped with deep violet red; the finest variegated Dahlia in the decorative class. **Each, 35c**

MEADOW GOLD.—A lovely, clear lemon, shading to creamy tips, a free and constant bloomer, with long strong stems. **Price, 35c**

MILLE. OCTAVIE GRAINDORGE.—NEW. A magnificent pure white, of great beauty of form; an ideal flower in every way. **Each, 50c**

MME. A. LUMIERE.—Pure white with violet-red points, good. **Each, 25c**

MRS. WINTERS.—Snow white, large, beautiful form. **Each, 20c**

PRINCESS JULIANA.—Originating in Holland; flowers are pure white, of perfect form, foliage is rich dark green. A splendid grower and profuse bloomer, the magnificent flowers carried on long, strong stems, will keep for days when cut. Special Award Royal Horticultural Society. **Plants or tubers, each, 50c**

REISEN VON STUTTGART.—A bright blood red; seedling of the famous "Doazon," of great size and beauty. A free bloomer and good cut flower. **Each, 35c**

SOUVENIR DE GUSTAVE DOAZON.—The largest Dahlia to date; often growing 9 inches in diameter; constant bloomer, magnificent rich scarlet color: the greatest of all Dahlias. **Each, 25c**



Paeony Flowered Dahlias



Mrs. Warnaar
Type of Flower
No. 6

GLORY OF NYKERK.—6—Dark, violet red, overlaid with blackish crimson. A brilliant and attractive flower of large size and finest Paeony type; good stems, beautiful foliage. **Each, 50c**

GREAT BRITAIN.—6—A magnificent, full petaled flower; color a pleasing light mauve with dark markings toward center. Of the largest size and most graceful Paeony type. **Each, 50c**

HORTULANUS FIET.—5—Bright salmon rose on old gold and orange, lighter towards tips. A most magnificent and truly marvelous flower, being a mass of blooms throughout the season. **Each, 50c**

HORTULANUS WITTE.—5—A wonderful giant white of great beauty, the broad, graceful petals are of good substance and of a glistening pearly white with fine large stems. First-class certificate. **Each, 50c**

THE rare new shades, brilliant coloring, velvety finish and glistening sheen of their petals, their giant size, yet most graceful and pleasing forms are not found in any other class of flowers. The varieties we offer have received special certificates of merit at the Amsterdam and Haarlem Shows.

Paeony Dahlias bloom more freely than any other class and are very vigorous, growing to a height of 5 to 6 feet, with their flowers on long stems above the foliage.

MRS. WARNAAR

A gem among the many wonderful new Dahlias the Holland growers have given us. Color creamy white suffused pink of distinctive form. Awards of merit Haarlem and Amsterdam.

Price, each, 75c

ANDREW CARNEGIE.—6—Salmon pink, shaded bronze, center very prominent and rounded; petals are somewhat flat, 4 ft. **Each, 35c**

AMERICA.—6—A glowing old rose overlaid with a rich shade of old gold. A shapely, full flower of 7 to 9 inches in diameter, with broad, gracefully twisted petals; flowers erect on long, strong stems. A magnificent and distinctive flower well worthy of the name "AMERICA". **Each, 35c**

A. SCHUTTEVAER.—6—White ground with lilac suffusion. Rare and beautiful. **Each, 35c**

BEAUTY OF CROYDON HALL.—6—Shades of lilac, salmon and pink, a profuse bloomer of splendid form. **Each, 35c**

BERTHA VON SUTTNER.—6—Salmon pink, shaded yellow, erect elegant form. Height 4 1/2 feet. **Each, 35c**

DOMINION.—6—Bright rosy red, shading rose-pink toward edges; large full flower, ornamental foliage. **Each, 35c**

DR. PEARY.—6—Brilliant, dark, velvety garnet red of magnificent form, the large twisted petals producing a graceful flower of great beauty. The small deep golden center enhancing the brilliancy of the pure self-colored petals. Flowers well poised on strong stems. **Each, 50c**

EILEEN KELWAY.—6—Golden yellow over-laid cerise with yellow center. Very attractive, shapely flower. **Each, 50c**

GEISHA.—6—Geisha has a rich, bright golden yellow ground color near center; suffused and heavily marked with clear, bright red, shading toward points of petals into the clear yellow of the ground color; a beautiful deep golden center adds to the harmony of the color scheme. Flowers often attain a width of 10 to 12 inches, and the massive petals are twisted and curled in the most fantastic manner. **Each, 50c**

GERMANIA.—6—A rich, dark, velvety wine color with suffusion of golden-yellow toward the edges of petals. Germania is free from the purplish tint that spoils other reds. **Each, 35c**

GIANT EDELWEISS.—3—This new type of Dahlia has true cactus petals of enormous length, curving inward at the tips; color a pure glistening velvety white, of great substance; the center is a brilliant golden yellow, a Giant duplicate of the famous Edelweiss of the Alps. Flowers are erect on long stems, 5 feet. **Each, 35c**

JAN OLIESLAGERS.—6—A grand, new clear deep yellow of fine Paeony form. Flowers of good substance, erect on long stems. **Each, 50c**

KING GEORGE.—6—Rich wine red, large full flower, very conspicuous and attractive. **Each, 35c**

LA HOLLANDE.—6—Dainty light rose with golden suffusion that deepens toward the center. A large and beautiful flower. **Each, 50c**

LEO XIII.—6—A giant yellow, rich, deep and brilliant. The full massive flowers are of ideal form with petals twisted and incurved, making a graceful fluffy flower well poised on strong stems. Without question the best yellow of its class to date. **Each, 50c**

MADAM VON BYSTEIN.—6—A magnificent lilac lavender, changing to light blue. A dainty fluffy flower of large size and lovely form; good stems. A graceful, refined flower of a new and beautiful shade. **Each, 50c**

PAEONY DAHLIAS--Continued

MME. BUTTERFLY.—6—Soft salmon rose, having a rich golden sheen. **Each, 50c**

OREGON BEAUTY.—6—A rare color — bright fiery scarlet with golden sheen—its very distinctive form, giant size, long stems and vigorous free blooming habit make it a worthy Dahlia for any garden. **Each, 35c**

PHILADELPHIA.—6—In form this is a semi-double cactus of giant size; color, rich reddish-purple with brighter shadings, suffused and marked with white; very free flowering. **Each, 35c**

PRESIDENT FALLIERS.—6—Orange red of a most pleasing shade. The splendid shapely flowers freely borne on good stems. **Each, 35c**

P. W. JANSSEN.—6—A magnificent Dahlia of splendid form and distinctive coloring, being a lovely shade of old rose, marked and suffused with deep, rich golden yellow. **Each, 35c**

QUEEN EMMA.—6—A bright pink with darker pink penciling and narrow yellow shading in center of petals. **Each, 35c**

THE BRIDE.—6—A giant flower of graceful form. Color is silvery white, of full fluffy Peony type, center petals twisted. **Each, 50c**

ZEPPELIN.—6—A rich, bright lavender of the largest size, well poised on big strong stems. A truly magnificent flower of great beauty. **Each, 35c**

Dwarf MIGNON Dahlias

NEW "MIGNON" DAHLIAS.—A new dwarf type of single flowered Dahlias, growing to a height of about 14 inches. Plants are bushy and symmetrical and produce in the greatest profusion brilliant large flowers of fine substance, borne on long stiff stems high above the foliage. They make a grand garden display and are long keepers when cut. Mignon Dahlias originated in Holland and were awarded 5 first-class certificates and 5 awards of merit at Amsterdam. We offer in four colors: **Brilliant Orange, Velvet** **Crimson, Yellow and Violet.**

Price, each, 15c; doz., \$1.50

"Collarettes"



Mignon
Dahlias
for
Beds and
Borders

Collarette Dahlias

Collarette Dahlias are of French origin, having single flowers with an additional row of petals around the disc, forming a frill or collar usually of a contrasting color.

ALBERT MAUMENE.—Rosy mauve, suffused with lilac, white collarette, fine stems. **Each, 35c**

COLLARETTA.—Lovely rose-shaded pink, yellow and rose collarette; very pretty. **Each, 35c**

FINE FLEUR.—Shades of fawn, apricot and yellow. Yellow collarette, very distinct. **Each, 50c**

TITANIA.—Deep crimson, edged rosy lake, white collarette. **Each, 35c**

Pom Pon Dahlias

These are pretty little globe shaped flowers on long stems, high above the dwarf foliage, fine for border. keep well when cut.

BESSIE.—Creamy white, finely quilled. **Each, 15c**

CATHERINE.—Purtest yellow; large. **Each, 20c**

DARKEST OF ALL.—Darkest pom-pom; perfect flowers. **Each, 20c**

GUINEVERE.—Pale salmon and yellow suffused and shaded pink with distinct gold tips. **Each, 20c**

GLOW WORM.—Rich yellow center with red tip covering about one half the petal, shading lighter toward center. **Each, 20c**

HYPATICA.—Amber shaded fawn edge and center lighter. **Each, 20c**

LILACEA.—Pale blush pink tipped rosy lilac. **Each, 20c**

LITTLE HERMAN.—Deep carmine, shaded garnet; tipped white. **Each, 20c**

NERISSA.—Soft pink, silvery tint; a beautiful new color. **Each, 20c**

POMPONIA.—Bright amber edged rosy cerise. **Each, 20c**

WHITE ASTER.—("Guiding Star.") A dainty, graceful, pure white flower with tips of petals cleft, giving a fringed effect. **Each, 20c**



GLADIOLI

EACH SEASON adds to the list of magnificent, new and improved Gladioli, and the great beauty and attractiveness of the flower. Their exquisite coloring, vigor, ease of cultivation and freedom from insect pests and diseases are making them universal favorites that should have a place in every garden. They grow to perfection in any good garden soil, requiring little moisture, and come into bloom at a season when there are few other flowers. Once planted, they can be increased rapidly.

CULTURE.—Gladioli may be planted as early as the ground can be worked or as late as June. A sunny situation is preferred. Plant to a depth of 3 to 6 inches, depending on the size of the bulb. Largest bulbs are not always best, as some varieties do not produce large bulbs. Any garden soil will give satisfactory results, but if well enriched, cultivated and freely watered when bulbs first show, Gladioli will amply repay you for this additional care. If cut when the first bud opens and put in water, the flowers will open perfectly, keep for many days, and the coloring is richer, and more delicate, than if left to open on the plant.

12 Beautiful New Gladioli

SPECIAL (for trial).—Entire Collection, 12 Bulbs, \$1.60, postpaid.

EUROPA.—Snow white without a trace of color or shading, the most sensational flower of its class ever produced. Special awards at every European show where exhibited. A grand flower of great beauty and substance.

Each, 20c; doz., \$2.00

GOLDEN KING.—Bright sulphur yellow with an intense crimson patch on the lower petal. One of the very best yellows.

Each, 20c; doz., \$2.00

GOLDEN WEST.—A splendid variety of bright orange color, very showy and brilliant. Each, 10c; doz., \$1.00

HALLEY.—Salmon pink with creamy white blotch. Large flower and early bloomer.

Each, 10c; doz., \$1.00

ELECTRA.—Dazzling shade of vermillion—Flowers very large.

Each, 20c; doz., \$2.00

LILY LEHMAN.—Brilliant light pink shading to blush white. Flowers resemble a lily. One of the best sorts.

Each, 10c; doz., \$1.00

MRS. FRANK PENDLETON.—A clear brilliant salmon pink with bright blood-red blotch in throat, on lower petal. A truly superb flower of largest size, opens freely and keeps well and is considered one of the most valuable and beautiful new Gladiolus. Highest awards at the Boston and Baltimore shows.

Each, 20c; doz., \$2.00

WILLIE WIGMAN.—A superb new variety, creamy white with red throat, large perfect flowers of the most pleasing type.

Each, 15c; doz., \$1.25

PANAMA.—A new seedling of America, identical except in color, which is much deeper pink than America. Spike long and the large flowers are well arranged and bloom out freely. A prize-winner everywhere exhibited.

Each, 15c; doz., \$1.25

WAR.—A deep rich, velvety crimson self color; large shapely flowers. Many consider "War" the most striking Gladiolus ever produced.

Each, 20c; doz., \$2.00

PINK PERFECTION.—A magnificent clear soft pink of great beauty. The large graceful flowers open freely, 6 to 8 showing at one time on long strong spikes. A single spike is a bouquet in itself. The most wonderful pink ever introduced.

Each, 20c; doz., \$2.00

SCHWABEN.—Creamy yellow with dark blotch in center. A splendid addition to the rare yellow types.

Each, 20c; doz., \$2.00

14 Select Named Gladioli, \$1.10, Postpaid

This splendid assortment contains many choicest new varieties, best of their class and color.

AMERICA.—Exquisite shade of flesh pink-tinted lavender. A grand giant flower, hardy and free blooming.

Each, 6c; doz., 60c; 100. \$3.00

ATTRACTION.—Deep crimson, white center.

Each, 7c; doz., 75c

GLORY OF HOLLAND.—White with inner throat slightly marked red. Tall, graceful, free flowering—sometimes tinged delicate pink.

Each, 10c; doz., \$1.00

CANARY BIRD.—A pleasing bright yellow.

Each, 15c; doz., \$1.50

KLONDYKE.—Light yellow, crimson maroon blotch.

Each, 6c; doz., 60c

MRS. FRANCES KING.—A pleasing light scarlet fine for forcing.

Each, 6c; doz., 60c; 100. \$3.00

NIAGARA.—The color is a lovely deep cream, shading to a canary yellow on the two lower inside petals. The giant flowers, carried on a large erect spike, open freely and contrast beautifully with the broad, dark green foliage. "Niagara" is a prize winner wherever exhibited.

Each, 15c; doz., \$1.50

Select Named Gladioli—Continued

“GLORY.”—Color a delicate cream pink tint with an attractive crimson stripe in the center of each lower petal. Flowers large, paired and faced the same way, borne on strong stalks, 3 1/2 feet high. From 4 to 8 flowers open at the same time, petals are exquisitely ruffed and fluted, giving the flower a refined, graceful appearance.

Each, 10c; doz., \$1.00

BARON HULOT.—The only true blue Gladioli; a dark indigo shade; very popular.

Each, 10c; doz., \$1.00

INDEPENDENCE.—Pleasing light scarlet flowers on long, straight spikes. Each, 8c; doz., 75c

PEACE.—Large flowers of good form. Almost pure white; very strong grower.

Each, 15c; doz., \$1.50

PINK BEAUTY.—Brilliant rich rose pink with heavy dark maroon blotch in the throat. An early blooming variety. Each, 6c; doz., 60c

PRINCEPS.—Giant flowers of richest, most brilliant crimson, with fine white blotch on lower petal.

Each, 10c; doz., \$1.00

TACONIC.—Bright pink marked with deep crimson and thin stripe of pale yellow. Strong grower.

Each, 10c; doz., \$1.00

Mixed Gladioli

DIAMOND MIXTURE.—Select named varieties with choicest Childs Hybrids.

Each, 8c; doz., 75c; 100, \$5.00

GLADIOLI, FINE MIXED.—This mixture will produce a large variety of fine flowers unequalled for the price. Each, 4c; doz., 35c; 100, \$2.50

CANNAS

WE are extensive growers of Cannas, and the following sorts are newer and better types that will give best results in our climate. Cannas require a rich, moist soil and should not be planted until all danger of frost is past. They are quick growers and the new flowering sorts bloom continuously until frost. Inexpensive, these charming ornamental plants produce rich tropical effects that cannot be exceeded, and the grand new varieties offered are equally valuable for the beauty of their bloom. Let us know your requirements. We can supply the correct variety.

Prices, except where noted: Bulbs or plants in season, each, 20c; dozen, \$2.00, postpaid.

ALICE ROOSEVELT.—Deep crimson, compact green foliage; similar and superior to Alphonse Bouvier. Height 4 to 5 feet.

CARL LUTZ.—New. A splendid bright rich yellow of finest form; foliage leathery and luxuriant. A fine upright grower and profuse bloomer. Height, 3 1/2 feet.

DR. NANSEN.—Dwarf yellow Canna with green foliage. Used extensively for bordering larger beds, its height being about two and one-half feet.

FEURMEER.—A magnificent clear bright red, flowers and spikes of large size and freely produced; foliage deep green. Height, about 5 feet. One of the very finest reds.

FIREBIRD.—New. Considered the best red-flowered, green-leaved Canna. Flowers are fiery, bright red, borne in immense trusses. Very effective when planted in large beds, tubs or single specimens. Height 4ft. Each, 75c; doz., \$8.00

FLORENCE VAUGHAN.—We offer a new seedling of this most famous canna that is a distinct improvement in growth, vigor and bloom; the color and markings are about the same only more brilliant and beautiful; a deep, bright yellow mottled and marked with bright red. Green foliage. Height, 4 to 5 feet.

GUSTAV GUMPPER.—A rich, clear golden yellow—best of its color—of splendid form and habit—the large flowers are freely borne and are well above the foliage. Height, 3 to 4 feet.

HUNGARIA.—A beautiful soft rose pink—flowers in large trusses, early, freely, continuously—one of the most refined and attractive cannas ever introduced. Height, 3 1/2 feet.

KING HUMBERT.—The mammoth flowers, in heavy trusses, are a brilliant orange-scarlet, with bright red markings. Foliage is broad and massive and of a rich coppery bronze with brownish green markings; 5 to 6 feet.

LOUISIANA.—Foliage luxuriant, green-edged bronze. Flowers brilliant scarlet. One of the grandest, most attractive and satisfactory of the Giant Orchid flowering Cannas. Height, 6 to 7 ft

METEOR.—Considered one of the best reds, being a deep dazzling crimson. Exceptionally free bloomer. Green foliage. Five feet.

MRS. ALFRED F. CONARD.—Flowers are a superb salmon pink of large size borne very freely and continuously on large, erect spikes; very luxuriant green foliage; height about 4 feet.

MT. BLANC.—A compact vigorous grower, producing a massive spike of large, pure white flowers carried well above the glossy green foliage.

OLYMPIC.—A new color effect in Cannas, being a rich oriental red with center flamed a lighter shade and dappled carmine. The individual flowers are of largest size and produced in immense clusters. Height 5 feet.

PORTLAND.—New.—A magnificent “Testout” pink with salmon suffusion. The luxuriant green foliage and profusion of large shapely flowers together with its vigor and hardiness make “Portland” the most attractive and useful Canna for the Northwest. Portland is a cross between Mrs. Alfred Conard and Venus and was named in honor of our City by the originator.

Each, 25c; Doz., \$2.50

STUTTGARTIA.—The large flowers are brilliant orange-scarlet with bright yellow band and markings. Flower spikes strong and erect above the foliage which is broad leaved, dark green and very luxuriant. Height 4 to 5 feet.

WABASH.—Sometimes called the “Bronze leaved Rosea Gigantea.” The immense carmine-pink flowers combined with the deep purple-brown foliage makes this an especially attractive variety. Height 4 feet.

WINTZER'S COLOSSAL.—This is without doubt the largest flowering Canna, the blooms measuring 8 inches across. The flowers are an intense vivid scarlet of the orchid flowering type, retaining their brilliancy under the hot sun. Foliage green. Height 5 to 6 feet.

Each, 25c; doz., \$2.50

Perennial Border and Bedding Plants

A select list of Border and Bedding plants, beautiful and useful varieties that are easily grown. Fine, large, well-rooted specimens that can be safely packed and promptly delivered in perfect condition. If you contemplate large plantings or special effects, let us know your plans and requirements. We can supply in any quantity for every requirement at lowest prices.

Perennial Phlox

HARDY as an oak, increasing in beauty each year, few things are as beautiful and satisfactory. The marvelous new colors, beautiful foliage and easy culture, make this choice flower one of the most desirable. We offer the following fine collection, which we have grown.

Each. 15c; doz. \$1.50

R. P. STRUTHERS.—Tall, rosy carmine, with claret-red eye; fine.

MRS. JENKINS.—Tall; the best tall early white for massing.

VESUVIUS.—Medium; one of the new seedlings; pure red with bright purple eye; a dazzling color.

SUNSHINE.—Dwarf; large, aniline-red with crimson-red eye and light halo.

GEO. A. STROHLEIN.—Medium bright scarlet with crimson red eye; does not bleach.

MME. PAUL DUTRIE.—Tall; a delicate lilac rose, reminding one of the beautiful soft pink Orchids.

ANTONIN MERCIER.—Medium; light ground color; upper half of each petal deeply suffused bluish-lilac, large white halo.

SELMA.—Tall; large flower; pale rose mauve with claret eye.

VON LASBURG.—Medium; the purest white in cultivation; individual flowers larger than any other white.

COQUELICOT.—Fine flowering, scarlet, with crimson eye.

DIADEM.—Large flowering, pure white — dwarf.

HUXLEY.—Medium; a beautiful lavender.

ATHIS.—Tall magnificent salmon pink, free and continuous bloomer.



Phlox for Rock-work

PHLOX SUBULATA—(Moss or Mt. Pink).—Early spring flowering, the foliage being covered with bloom; useful for carpet bedding, cemetery planting or rockeries.

EUROPA.—Medium; very large florets in immense trusses. Color pure white with distinct crimson eye.

GOLIATH.—Truly a giant in growth; color bright crimson carmine, deeper eye.

PHLOX DIVARICATA CANADENSIS.—Blooms early April, has large, beautiful lavender flowers; grows 10 inches high.

Larkspur—Delphiniums

HARDY LARKSPUR.—One of the most beautiful and useful border plants; is a great favorite in the English gardens and their famous specialists have produced magnificent new varieties of rare beauty of form and exquisite coloring; vigorous, free-blooming and hardy. The following named varieties are among the best—and the hybrids are the selection of a famous specialist.

KING OF DELPHINIUMS.—Giant semi-double flowers, deep blue with white eye; a vigorous free bloomer.

DUKE OF CONNAUGHT.—Large flower of bright velvety-blue with inner petals of rosylavender. The eye is nearly black which brings out the distinctiveness of this variety.

HANS DEKKING.—Very free flowering sort having flowers of a brilliant cornflower blue. One that should be in every collection.

DELPHINIUM FORMOSUM.—Dark blue with white center.

QUEEN ALEXANDRA.—Sky-blue, white eye, single, very effective and beautiful; 4½ ft.

MASTERPIECE.—Lovely deep gentian-blue and plum. Reflexed flowers of immense size. Very beautiful and quite distinct. Tall.

TRUE BLUE.—Intense deep blue with black eye. Single flowered tall sort. One of the very finest.

BELLADONNA GRANDIFLORA.—Clear, delicate turquoise, dainty and beautiful; a strong grower, always in flower.

PERFECTION.—Sky-blue petals suffused with rosylavender. Semi-double. Branching habit. One of the very finest and most beautiful Delphiniums we have ever grown.

PRIMROSE.—White sepals, yellow eye, single flowered.

PRICES—NAMED VARIETIES—Fine Large 2-year Clumps. Each. 25c; per dozen, \$2.50. **MIXED**—Each. 20c; per dozen, \$2.00.



Hardy Perennial Garden Plants—Continued

Once planted require but little care and bloom with increasing beauty each year. Plants marked 15c, are \$1.50 doz.; 20c, \$2.00 doz.; 25c, \$2.50 doz., F. O. B. Portland.

ALYSSUM SAXATILE COMPACTUM.—Bright yellow corymbs; showy Spring flowering plant which also flowers in Autumn. **Each, 20c**

ANEMONE JAPONICA.—Beautiful Fall blooming plants. Pink or white. **Each, 20c; 2 sorts, 35c**

ANCHUSIA ITALICA.—Tall growing hardy plant, with pretty blue flowers in large racemes. **Each, 20c**

ANTIRRHINUM.—(Snap Dragon.) Pink, Red, White, Orange, Bronze and Yellow. Tall and dwarf. **Clumps, Each, 15c; Small Plants, 50c doz.**

AQUILEGIA HYBRIDA.—(Columbine). An old favorite for Spring and early Summer. Blue, violet, pink. Fine for cut flowers. **Each, 15c**

ARABIS ALPINA.—(Rock Cress). Low growing, fine for borders. Covered in spring with white blossoms. **Each, 15c; doz., \$1.50**

ARTICHOKE.—Ornamental garden plant, bearing edible buds that develop into giant thistle-like blooms. **Each, 15c; doz., \$1.50**

BLETIA HYACINTHIA.—Hardy ground orchid for outside planting. The dainty flowers are of a delicate lavender or true orchid shade. Keep well and are very beautiful. **Each, 30c; doz., \$3.00**

CANTERBURY BELLS.—Pink, white, blue, large clumps. **Each, 20c; doz., \$2.00**

CAMPANULA.—**New Double White.**—A dainty and beautiful flower, 2 to 2 1/2 feet high, bearing spikes of large snow white, prettily formed, fully double blossoms. Pinch off the old flowers and the plant will bloom continuously. One of the best border or bedding plants ever offered. **Each, 25c**

COREOPSIS.—(Golden Sunbeams.) Beautiful golden-yellow flowers on long stems; always in bloom; fine for cutting. **Each, 15c**

DORONICUM.—Early Spring flowering Marguerite-like yellow flowers. Fine border plant. **Each, 20c**

ENGLISH PRIMROSE.—Finest sorts, from pure yellow to deepest crimson-maroon; early, low-growing, fragrant. **Each, 20c**

FOX GLOVE.—(Digitalis). Tall Gloriosa Flowered. **Pink, White and Blue. Each, 15c; doz., \$1.50**

GAILLARDIA GRANDIFLORA.—Splendid large flowers; combination coloring of yellow, brown, crimson, orange; height, 2 feet; bloom until frost; fine for cut flowers; hardy everywhere. **Each, 20c**



COLUMBINE
(*Aquilegia*)

GEUM.—(Atrocinium.) A splendid bed or border plant—erect habit—18 to 24 inches—bearing freely, dainty little double red flowers. **Each, 20c**

GIANT DAISIES.—Pink and white. **Each, 15c; doz., \$1.50**

GYPSOPHILA PANICULATA.—Single and double; thrives during driest weather; elegant rock plants and very useful for cut flowers. **Each, 20c**

HARDY ASTERS.—Among the showiest of late flowering plants, blooming when most other flowers are past. The colors are dainty blues, shades of red and pink, and white. **Each, 15c**

PLUMBAGO LAIPENTEA.—Fine edging plant, growing four inches high and covered all Summer with sky blue flowers. **Each, 15c; doz., \$1.50**

HELIANTHUS SPARSIFOLIA.—Superb new single sunflower of striking beauty; blooms late in the season. A real gem. **Each, 20c**

HEUCHERA SANGUINEA.—Dainty alpine plant. Extremely hardy and easy to grow. Requires the shade of a rockery or fernery. The bell-shaped coral red flowers are similar in form to Lily of the Valley, borne on long wiry stems about 18 inches. **Each, 25c**

HOLLYHOCKS.—Hollyhocks require good soil, prepared by deep digging and working in well rotted manure; water during dry weather.

New Double and Single.—Red, yellow, pink, and white. **Each, 15c; 4 for 50c; large clumps, each, 25c; doz., \$2.50.**

MULTILIJA POPPY.—(*Romneya Coulterii*). A native California plant, perfectly hardy on the Pacific Coast but needs some protection in severe climates. The immense flowers are snowy white with golden yellow stamens and often measure 6 to 7 inches across. It is of rapid growth and thrives best when planted in a well drained sunny sheltered position. **Price, each, 50c to \$1.00**

MARGUERITE MRS. F. SANDERS.—(Annual). Valuable for conservatory or window garden in late winter or spring; excellent bedding plant during summer months; color, pure glistening white, the full fluffy flowers frequently measuring 5 inches across. **Each, 15c; doz., \$1.50**



PERENNIAL ASTERS





HARDY PERENNIAL GARDEN PLANTS—Continued

New
Shasta
Daisy
Alaska



Plants marked 15c are \$1.50 doz.; 20c, \$2.00 doz.; 25c, \$2.50 doz., F. O. B. Portland.

RUDBECKIA.—*Golden Glow*.—Bears in greatest profusion immense double blooms, large as Dahlias, of the brightest, golden yellow; hardy everywhere. **Each, 15c**

RUDBECKIA NEWMANI.—*(Black-eyed Susan)*. Golden yellow ray petals around a dark center. Fine cut flowers. **Each, 15c**

SALVIA PATENS.—A beautiful plant of the purest blue, blooming from June to October. Is not quite hardy and needs some protection. One and one-half to two and one-half feet. **Each, 25c**

SHASTA DAISY.—*(Alaska)*. This new "Shasta" is covered with immense, fluffy white blooms, with golden eyes, from July until late Fall; long stems; fine for cutting; one of our best hardy border plants. **Each, 20c**

SWEET WILLIAM.—Old favorites for beds and borders. Brilliant and pleasing colors. **Each, 15c**

VERONICA REPENS.—*(Creeping Speedwell)*.—Slender compact plant with blue flowers. Thrives in the sun where grass will not grow, covering the ground in a short time. Fine for rock work. **Each, 15c**

VERONICA PROSTRATA.—Splendid for rock gardens and edges of borders; color deep blue. Blooms May to August. **Each, 15c**

WALLFLOWER.—*(Dark and Light; single and double; mixed)*, good subjects for rock garden and spring bedding. **Each, 20c**

Oriental Poppy

The most brilliant and gorgeous of all garden plants: is hardy and succeeds well in any good garden soil, blooming in May and June, they are dormant thereafter until cool weather. We offer rare and beautiful new sorts, besides the standard red type and hybrids.

SALMON QUEEN.—Rich salmon pink with coppery orange suffusion; deepest purplish black center and markings. A rare and splendid flower of largest size; vigorous and free blooming. **Each, 25c; doz., \$2.50**

KELWAY'S HYBRIDS.—The graceful, bright-colored cup-shaped flowers are very attractive for garden or table decorations. **Each, 20c; doz., \$2.00**

New—PERRY'S WHITE.—A splendid novelty of the greatest merit. Pure satiny white with brilliant crimson marking at base of petals. Good plants. **Each, 25c; doz., \$2.50**

MAHONY.—A magnificent flower of the darkest richest color yet known in a poppy, almost a true dark mahogany. Large, free blooming; a splendid companion to Salmon Queen. **Each, 25c; doz., \$2.50**

ORIENTAL POPPY.—Red. The old time favorite. **Each, 20c; doz., \$2.00**

Miscellaneous

Yucca

SPANISH BAYONET OR ADAM'S NEEDLE.—Has a fine appearance; the stems grow two or three feet above the ground; covered with large, bell-shaped flowers on laterals, forming a perfect pyramid; valuable for rockwork.

FILAMENTOSA.—Thread leaved, creamy white; July. **Plants, 2 feet, each, 75c to \$1.00**

Pampas Grass

A noble ornamental grass, easily grown, producing long, pointed leaves and majestic, silvery white plumes, which are very valuable for winter decoration; grows 6 to 8 feet high.

Strong roots, each, 60c to 75c
Large specimen plants, \$2.00 to \$5.00

DRACAENAS

D. INDIVISA.—This is the popular hardy Dracaena that is used so extensively for centers of vases, baskets, boxes, etc. Of graceful form, and stands full exposure to sun.

4-inch pots, 35c; 5-inch pots, each, \$1.00

UMBRELLA PLANT

CYPERUS.—*(Alternifolia)*. A splendid house plant of easy culture; resembles a palm; requires little or no attention, and remains green throughout the year. Keep well watered.

Small plants, postpaid, each, 15c to 25c
Large plants, by express, each, 35c to \$1.00

Ornamentals

Tritoma (Pfitzeri)

EVERBLOOMING FLAME FLOWER—*(or Red Hot Poker)*.—This new sort is of a rich orange-scarlet, blooming from mid-summer to latest frost; spikes 3 to 4 feet high; one of the very best of this useful class, which is hardy with slight protection, but winters best if lifted and stored in sand. These hardy perennials are unsurpassed as border plants or for mass effects.

Strong flowering roots 25c, doz., \$2.50 postpaid

St. John's Wort

(Hypericum Moserianum)

Low growing with yellow blooms; a drought resister. July and August. **Clumps, 50c**

PANDANUS VEITCHII

Graceful foliage plant; broadly striped cream on green ground; one of the finest decorative house plants.

Each, \$1.00 and \$1.50

ASPIDISTRA

Ornamental foliage, plant throwing up shoots which unfold, developing into long, graceful leaves; color a beautiful dark glossy green; give same treatment as hardy palm.

VARIEGATED.—Rich, creamy markings. **\$1.50 up**

RUBBER PLANT

FICUS ELASTICA.—This is certainly one of the best plants grown for decorative purposes; it succeeds well with ordinary treatment.

Large plants, each, \$1.00 to \$1.50 up



Single Tuberous Begonia

THESE beautiful and interesting plants can be easily grown in tubs made by cutting a barrel in half and setting one or both halves deep in the ground, to within a few inches of the top. Put in good loam soil, with one-third old manure, or better still is the soil from a swamp or lowland, using one-third of old, well-rotted manure; cover soil with a layer of sand one to two inches deep, allowing for a depth of six inches of water.

Water Lilies like a mild temperature, and still water, and will not succeed where a fountain is playing or where there is a strong or cold inflow.

NYMPHAE—Hardy white. **Single roots, 35c, postpaid; large roots, 75c to \$1.50, prepaid.**

Parrots Feathers

Produces long trailing sprays of lovely green, finely cut foliage set in symmetrical whorls; plant in a water tight vase or hanging basket, keeping water standing over the surface. A beautiful thrifty growing, hardy plant. Try it.

Good roots, each, 25c; doz., \$2.50



BEGONIAS—Tuberous Rooted
FROM their early first blooming until cut down by frost, Tuberous Begonias display a mass of most gorgeous and brilliant coloring. They are distinct and unique, in wonderful shades of yellow bronze, white, reds, pinks, with thick waxy petals and grand ornamental foliage, never failing to excite the wonder and admiration of all who see them.

CULTURE.—The soil should be rich in leaf mould, or well-rotted manure, a little sand being beneficial. Start the bulbs inside in the early Spring, and transplant when danger of frost is past. They should be lifted in the fall before frost, dried and stored in sand in a cool place.

Place between layers of damp moss, not too wet, temperature about 70 degrees. This starts both top and roots; then pot for root development before planting outside.

Single Flowering

These are of immense size, free blooming and very lasting. **Each, 10c; doz., 85c; 100, \$6.00**

Double Flowering

Often as full and beautiful as a rose, some of the white varieties resembling giant carnations. Price, separate colors: **Each, 15c; doz., \$1.50; 100, \$10.00**

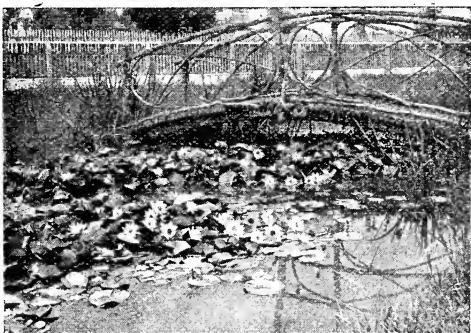
Frilled

Single frilled, having heavy frill or fringe on edges of the petals. **Each, 20c; doz., \$2.00; 100, \$15.00**

OUR DIAMOND MIXTURE, containing all of above sorts. **Per doz., \$1.50; 100, \$10.00**

Water Lilies

Often as full and beautiful as a rose, some of the white varieties resembling giant carnations. Price, separate colors: **Each, 15c; doz., \$1.50; 100, \$10.00**



Mastodon Pansies

"Mastodon Pansy" in Bloom

From March until June we offer our famous "Mastodon" Pansy plants in full bloom—none finer in the world. Put up one dozen in a basket.

Price, 60c to \$1.00 per basket by express, buyer to pay charges. They will surprise and delight you.

Giant Pansies

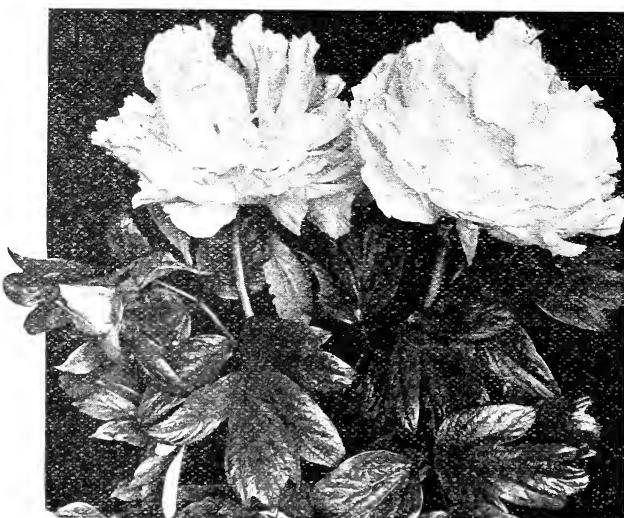
NEW GIANT PANSIES.—Our Giant Plants are in a class of their own and can not be compared to any other Giant Pansies, no matter where grown. We know they are unsurpassed in this or any other country. A trial basket will convince you. They are the best value ever offered in a bedding plant.

Each, 5c; doz., 50c; by mail, 75c doz.

MASTODON PANSY SEED

We offer a limited amount of this hand selected seed, **DIAMOND MIXED**

Per pkt., 25 cents Large Trade pkt., \$1.00



Paeonies

THE development and increase in popularity of the Paeony has been unparalleled among flowers, and the profusion and duration of bloom, combined with handsome, massive foliage, accommodating habit, and easy culture, render them one of the most popular hardy plants grown for lawn and garden decoration.

Paeonies are always free from disease and insects do not bother them. They are hardy, thrifty growers, bloom freely, and nothing will add more to the beauty and attractiveness of the lawn.

Hardy Phlox

One of the most beautiful and satisfactory perennials. We offer a superb collection.

SEE PAGE 120

Double Herbaceous Paeonies

FESTIVA MAXIMA.—This superb variety is easily the most popular and valuable Paeony. Its flowers, of rare beauty and great size, are perfectly double, pure white tipped or flaked with a small crimson spot at center; petals fine as summer silk; finest white in cultivation; strong roots.

Each 75c; large specimen plants, \$2.00

DELICATISSIMA.—Light rosy apricot, sometimes margined carmine red.

Each, 40c

COURONNE D'OR.—A superb white flower of immense size, reflects yellow, center petals bordered carmine, a perfect flower of great beauty, very fragrant, free blooming and vigorous; late.

Each, 75c

MAD. BREON.—A beautiful variety with good growing qualities; flowers outside flesh, center lemon, occasionally carmine tipped when first open; entire flower gradually changing to pure white.

Each, 60c

DELACHEI.—Large, full flower of a deep rich crimson, purplish tone; a free blooming thrifty grower, very fragrant; medium to late.

Each, 35c

OFFICINALIS RUBRA.—Flowers of a bright scarlet crimson; quite double and globular; very early, rare and fine.

Each, 30c

OFFICINALIS ALBA.—Blooms with *Officinalis Rubra*; flowers large and handsome. When *Alba* first opens it is light pink, fading to white as flowers get older.

Each, 30c

OFFICINALIS ROSEA.—Beautiful bright pink globular flowers, blooms with *Officinalis Rubra* and *Rubra*. These splendid early bloomers produce fine flowers for Decoration Day.

Each, 30c

MAD. DE VERNEVILLE.—Broad outside petals, sulphur white, with center rosy white, sometimes edged carmine, and beautifully imbricated; an exceptionally fine full flower, with the sweet fragrance of the rose. One of the earliest.

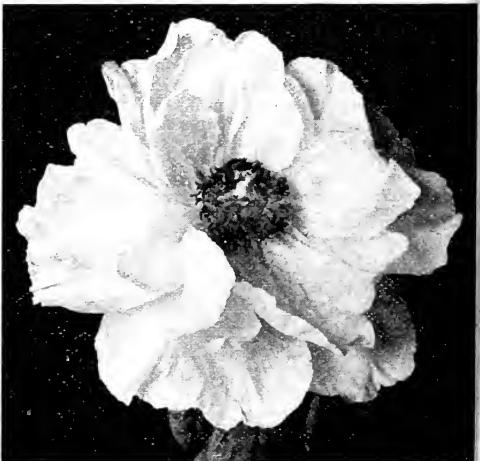
Each, 50c

POTTSI-ROSEA.—Rich deep rose, lighter center.

Each, 40c

FRAGRANS.—Late; color deep rose; fragrant and a very prolific bloomer; tall grower. Each, 40c

QUEENS PERFECTION.—One of the finest of the creamy flesh whites, large, full and attractive. Each, 40c



Paeony Moutan

Paeony Moutan

(Tree Paeony)

Grows about four feet high, forming a small tree-shaped shrub. When this plant becomes well established and is covered with dozens of massive blooms it presents a magnificent display. We have **Crimson, Pink, Scarlet, Rose and Variegated**.

STRONG IMPORTED ROOTS. from January to May, by express at buyer's expense (too heavy to mail).

Each, 75c



Japanese Iris

IRIS are of such easy culture and rare beauty that every one should grow them. They make a magnificent display either in clumps or border, blooming profusely and increasing rapidly, and are rarely troubled by disease or pests.

They are perfectly hardy in the open ground, and contrary to popular belief, do not require more water than other plants, although a moist situation is preferred, but any good garden soil will grow them to perfection.

If planted in light soil, depress the beds a little below the surroundings. This helps to collect and hold the moisture. Plant Fall or early Spring.

Japanese Iris (Iris Kaempferi)

Japan Iris is the largest and most wonderful of the Iris family, no flower of any kind surpassing in rare beauty of form, brilliancy and variety of coloring, ranging from snow white through maroon, violet and deep blue; striped, variegated, veined and blended in the greatest profusion, producing effects that are truly marvelous and indescribable. Bloom early summer. Japan Iris succeeds best in moist location, but will thrive in any good garden soil. Plant three inches deep, about 4 inches apart; divide the clumps every two years. Prepare established beds while dormant, using stable manure, but do not apply after growth starts. There are hundreds of varieties, from which we have selected the following:

Single Varieties

OMO-ZAKURA.—Light ground, densely veined and suffused purple.
YU-DO.—Dark violet.
NO-NO-NAMI.—Silvery white, veined violet.
HINOGO.—White.
JINO.—Reddish purple, mottled and veined white.

AMED VARIETIES.

Each, 20c; doz., \$2.00; 100, \$15.00

Double Varieties

ANA-AOI.—Bright violet blue shaded white to center.
SHO-KUN.—Navy blue, purple center, late.
AKA-MURA-SAKI.—Crimson, purple, blue shadings and blotches in center.
ENJO-NO-HORA.—Mottled and veined, red, purple and white.
UMOMA-NO-SORA.—White, with a strongly marked sky-blue zone and mottled in the same shade.
EZO-NISHIKI.—Deep rich crimson, mottled and blotched white, 3 standards same color.
UMA-FUNJIN.—Purple overlaid with navy blue, 2 standards, very large orange blotches.
UMO-NO-OBI.—Dark lavender purple, large handsome flower, 3 petals.

ixed, GOOD ASSORTMENT.

Each, 15c; doz., \$1.50; 100, \$11.00

German Iris

German Iris is one of the best of the early Spring flowers, is hardy everywhere, and if planted in a moist situation or watered freely, will produce magnificent orchid-like blooms of great size and delightful fragrance. Comes in charming color effects in **blues, browns, yellows, purples, white.**

CELESTE.—Satin blue.

FLORENTINE ALBA.—White.

PALLIDA DALMATICA.—Extra large, lovely true lavender, delightful fragrance, free flowering, fine for massing or as cut flower.

MADAME CHERAU.—Large white, dainty frilled blue edge.

MAORI KING.—Rich deep yellow.

SPECTABILIS.—Violet purple.

SHAKESPEARE.—Bronze violet.

MARS.—Light yellow and cream.

Prices: CHOICE ROOTS Each, 15c; doz., \$1.50; 100, \$10.00

English Iris

English Iris is very hardy; has a wide range of colors; and is very useful in extending the blooming season as they follow the Spanish Iris, which they somewhat resemble, and are passing when the Japanese begin blooming. Plant 3 to 4 inches apart, in any good soil.

BLEU CELESTE.—Pale blue.

EMPEROR.—Violet.

GRAND VAINQUEUR.—Purple, flaked red.

MISS BARKLEY.—White, flaked crimson-violet.

MONT BLANC.—Pure, snowy-white; a beautiful variety.

PRINCE OF WALES.—Dark Blue.

Each 6c; doz., 60c; 100, \$4.00.

Iris Siberica

A dainty and beautiful free blooming Iris with long graceful stems—flowers are a lovely shade of dark blue—fine for cut flowers or garden decoration.

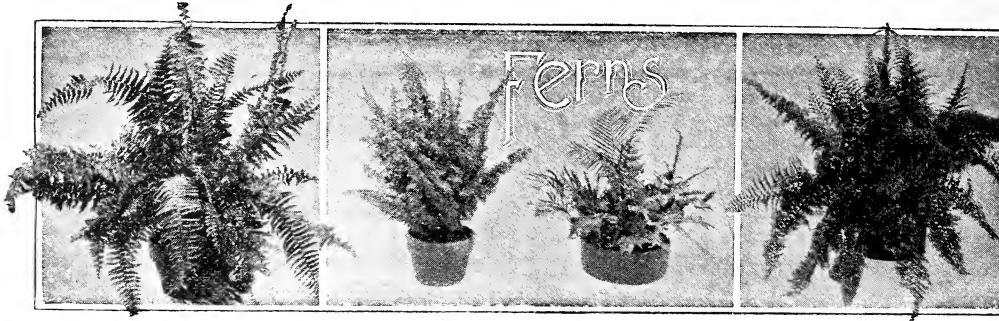
Clumps, Each, 25c; doz., \$2.00; Postpaid

Montbretias

One of the most popular and satisfactory of our summer flowering bulbs. Their brilliant coloring shades of orange, vermillion, red, gold and bright yellow, produce charming and attractive effects. Very useful and lasting when cut. Plant in the spring 3 to 6 inches apart. In severe climates protect winter.

MONTBRETIAS.—Assorted. Choice named varieties.

1 for 10c; doz., 35c; 100, \$2.25



WE offer a splendid list of Ferns, including some of the newest varieties as well as the older sorts. All plants are in fine growing condition, and well rooted. Florists wishing stock of the new varieties write for prices.

Nephrolepis or Boston Ferns

Price small plants, 25c; from 4 in. pots, 60c; 5 in. \$1.25, postpaid.
Specimen plants, \$1.50 to \$3.00 F. O. B. Portland.

N. AMERPOHILII.—This charming "Lace Fern" is so finely "crested" as to have a fluffy lace-like appearance, and is the most beautiful and attractive "sport" from the Boston Fern.

BOSTON FERN.—This is the original and well known type of "Sword Fern."

OSTRICH PLUME FERN.—(*Nephrolepis Whitemani*).—One of the most wonderful and beautiful introductions of the present age; this new sort is a sport from the well known Boston Fern.

New and Popular Ferns

ASPARAGUS PLUMOSUS.—(Climbing Lace Fern). A finer and more delicate plant than the Sprengerii, but hardy and easily grown; the fronds retain their freshness for weeks when cut; fine for floral decorations.

Nice plants, each, 15c; large plants, 25c to 50c

ASPARAGUS SPRENGERII.—(Emerald Feather) Handsome and valuable evergreen trailing plant for the house or conservatory; its beautiful sprays of lovely green, feathery foliage can be cut freely. Nice plants, each, 15c; large plants, 35c to 50c

MAIDEN HAIR.—(*Adiantum Crenatum*). This is the hardy Maiden Hair Fern so valuable to florists for cutting, grows freely under almost any condition inside; it is a sure grower.

Good plants from 4-inch pots, \$1.00 postpaid

SPECIAL — Six Fine Table Ferns for \$1.00

Price 20c each; 6 sorts for \$1.00 Extra large plants, 40c each, postpaid.

ADIANTUM CUNEATUM.—Maiden Hair Fern. A very beautiful and graceful fern.

ASPIDIUM TAUSSIMENSE.—Without question the most valuable of all ferns yet introduced for fern dishes; of strong but dwarf and graceful habit.

BOSTON FERN.—See description above.

HARDY FERNS—For Shady Borders and Rock Work

PRICES: Nice plants, 25c and 50c each. Trial Collection, \$1.50, postpaid.

EVERGREEN WOODFERN.—(*Dryopteris Marginalis*)—Marginal shield fern; most valuable of the hardy evergreen ferns for garden.

QUEEN OF LADY FERNS.—(*Asplenium Victoriae*)—A vigorous rapid grower; one of the best of the "Lady Ferns." The arrangement of the leaves forming rows of crosses the full length of the fronds. A rapid grower making a good showing the first year.

NATIVE OREGON SWORD FERN.—Makes imposing specimens in borders or in tubs. Prefers partial shade.

HART'S TONGUE.—(*Scolopendrium Vulgare*)—Easy of cultivation; very distinct and attractive.

N. ROOSEVELT.—Resembles Boston Fern, produces many more fronds, making a bushier and handsomer plant.

SCOTT FERN.—(*Nephrolepis Scottii*)—Identical with the original Boston type, but is dwarfed with a more compact and bushy habit of growth.

TEDDY JUNIOR.—The new Dwarf Fern, sport from the famous Roosevelt Fern. Very compact in form, a vigorous and rapid grower, producing about four times as many fronds as any other fern ever introduced.

FOR FERN DISHES.

Attractive assortments, sufficient for 5 to 6-inch pans. 75c to \$1.00, postpaid.

CYRTOMIUM ROCHFORDIANUM.—Foliage of a rich deep glossy green color; the leaflets besides being wavy, are also deeply cut or toothed, valuable for a dish fern and for decorative work.

Prices: Small plants, 25c; from 4-inch pots, 60c, postpaid.

Japanese Fern Balls

DIRECTIONS FOR STARTING.—Place ball in water for 15 minutes, and then suspend in an desired position, or place in a shallow dish, repeat every two days until growth is started, after which sprinkle occasionally as required.

Price of Balls in dormant state, large size each, 75c; small, 50c.

CYRTOMIUM FALCATUM.

—(The Holly leaf fern). One of the most desirable; with hard, dark green foliage.

PTERIS CRETICA ALBO-LINEATA.—A pretty and useful variegated variety, distinctly showing the clear white variegation.

OSTRICH PLUME.—See description above.

Send in an order for hardy ferns, our selection. We can supply many not listed and you will be more than pleased.

Miscellaneous Flowering Plants

The following list includes many of the most useful and beautiful plants for Baskets, Porch Boxes, Bedding and House Plants.

ABUTILON ECLIPSE.—Handsome variegated foliage and bright pendant flowers of scarlet and gold colors. Fine for vases and hanging baskets.

Each, 15c

ABUTILON SAVITZI.—Elegant compact growing plant with pretty fringed foliage of a bright green color, distinctly edged with snow white. Equally desirable as a house plant as it is for bedding purposes.

Each, 15c

CINNAMON VINE.—A beautiful vine of rapid growth, suitable for porches, trellises, etc. One of the very best quick-growing vines.

Large roots, 10c each; 3 for 25c

COLEUS.—Fancy Leaved—Coleus are the most important of all the fancy leaved bedding plants. They also make very fine pot plants, especially if you have a warm room to Winter them in. Our collection is strictly up to date.

Each, 10c; 6 fine sorts, 50c

ERSIAN CYCLAMEN, GIANT FLOWERED.—Cyclamen have circular fleshy leaves of a rich metallic green variously marked with silvery stripes. The flowers appear at the approach of cool weather and continue blooming throughout the winter. Colors, red, pink and white.

25c each; Larger plants, 50c each, postpaid

ERMAN IVY.—Waxy green leaves, strong growing vine for window and porch boxes or for hanging baskets.

Each, 10c

ENISTA RACEMOSA.—Shower of Gold plant. Its pendant-shaped flowers literally smother the plant during the spring months, while at other times its graceful dark green foliage makes a very ornamental plant. Easily grown.

Ea. 20; Larger plants, .40; add 10c if postp'd.

ESSEMBRYANTHEMUM SPECTABILIS.—Quilled shaped, succulent leaves with large single thistle-like cerise pink flowers. Fine for baskets, vases or porch boxes.

Each, 10c

PETUNIA, Irvington Beauty.—This new single-flowered petunia is at present a very popular bedding and window-box plant. Covered all season with beautiful light pink flowers veined green and shaded to white in the throat.

Each 15c; 4 for 50c

PRIMROSES, NEW GIANT OBCONICA.—A lovely perpetual blooming primrose. The crisp green leaves spring up luxuriantly amid which appear, all season through, stout little stalks, each surmounted by a pretty cluster of lavender-pink flowers several inches across. One of the finest winter blooming house plants for a cool room. Price, 15 cents each. Larger plants, 25 and 35 cents each. Add 10c if postpaid.

PRIMROSES, CHINESE FRINGED.—These are easily grown in a cool room, delighting in a light sandy soil. The flowers are fringed, of fine size, produced in trusses well above the fresh lively green foliage which of itself is very handsome. Can be supplied in three colors, red, pink, white. Price, 15 cents each. Larger plants, 25 and 35 cents each. Add 10c if postpaid.

SALVIA—(New Zurich).—A distinct and attractive variety of compact dwarf growth, of neatly rounded form, closely set with stiffly erect spikes of bright scarlet flowers.

Each, 10c: per doz., \$1.00

SMILAX.—For using as a green with cut flowers. Fine as a parlor or window plant. Each, 10c

VINCA VARIEGATA.—Leaves are a glossy green, broadly margined a creamy white. The best of trailing plants for window boxes.

Each, 15c; 2 for 25c

VERBENA—(New Mammoth).—The Verbena is, next to the Geranium, the most popular of all bedding plants. Ea., 7c; 7 asst'd colors, doz., 75c

WANDERING JEW—(Tradescantia).—White and Red Variegated.

Each, 10c

Popular Annual Bedding Plants

During the months of April and May we have thousands of the following bedding plants, price per dozen by express at buyer's expense:

Yssum.....	\$0.30	English Daisies ..	\$0.50	Lobelia.....	\$0.30	Phlox	\$0.30
sters.....	.30	Forget-Me-Not ..	1.00	Marigold.....	.30	Salvia ..	.30 and .50
rnations.....	.60	Geraniums, 75c to 2.00		Mignonette.....	.50	Stocks .....	.30
smos .....	.30	Heliotrope .....	.50	Petunia ..	.30 and .50	Verbena .....	.30

Bedding Lantanas

A fine class of summer blooming bedding plants. In California and the Hawaiian Islands they grow to a large size and are conspicuous objects of all visitors to those parts of our country. In our section their brilliancy of colors during the summer season.

RBEILLE D'ARGENT.—Lovely pure white variety, dwarf and compact.

LANDE.—Beautiful umbels of showy flowers in shades of crimson, orange and yellow.

D DEX.—Bronzy-red and crimson-violet, very striking.

RE.—White with clear yellow centers, dwarf growing.

also known as shrubbery Verbenas. In Southern

they will vie with the geraniums and cannae in

Price 15c each. Set of 6 sorts 75c

RED AND GOLD.—Very dwarf grower covered all summer with umbels of richly colored flowers. Yellow and orange in center, deep crimson towards edge of umbels. This fine variety has been featured strongly at our Rose Festivals the last two years.

WEEPING LANTANA.—Of trailing habit making it also desirable for baskets and boxes. Lavender colored flowers all summer long.

New Heliotropes

Price, 15c each; set of 4, 50c, postpaid.

BATROSS.—Elegant dwarf, bushy growing new variety of great merit; large panicles of pure white flowers in great profusion all season; the best white variety to date.

AVENUE BLUE.—Large, close panicles of exquisite light blue flowers, with a white eye. Grows vigorously and flowers abundantly; very fine for bedding, for which purpose we offer it at \$1.00 per dozen

LAVENDER QUEEN.—Enormous florets, very large trusses of bloom; color, a beautiful shade of lavender, suffused with rosy mauve. A dwarf, robust grower and a free and continuous bloomer.

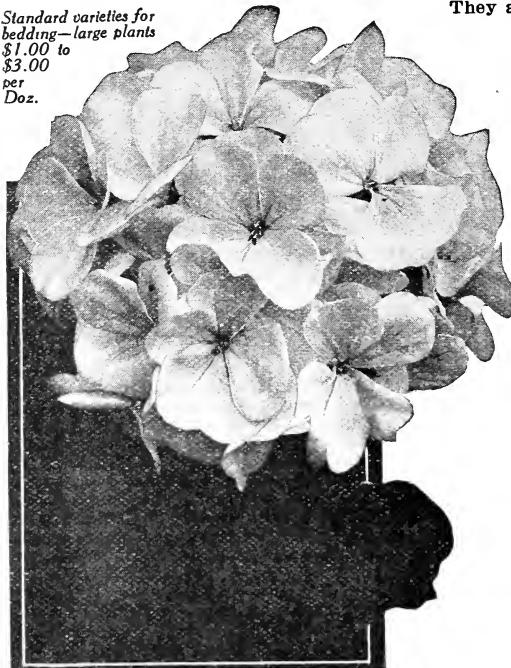
ROYAL PURPLE.—Very large and fragrant; color deep violet purple, with white eye; very floriferous and cannot be too highly recommended for bedding, for which purpose we offer it at \$1.00 per dozen



GERANIUMS

GERANIUMS are undoubtedly the most popular bedding plant of the time. Their free rapid growth and continuous blooming qualities keep them in the front rank among the long list of bedding plants. Beds of one color or variety have been very popular of late years, being very effective in all garden efforts.

Standard varieties for bedding—large plants
\$1.00 to
\$3.00
per
Doz.



ROMILDA VICINI.—White ground overlaid with light rosy-salmon with a reticulated effect. Upper petals feathered with crimson. Novel colorings.

Twelve Fine Single Geraniums Price, 10c each. Set of 12 sorts. \$1.00; postpaid, \$1.10.

ALBION.—Beautiful free flowering white variety as pure as driven snow. Always in bloom.

C. W. WARD.—Rich salmon shaded to orange, magnificent zoned foliage.

EUGENE SUE.—Odd shade of russet orange, very distinct.

JACQUERIE.—Rich, vivid crimson, immense trusses.

MAXINE KAVOLENSKI.—Odd shade of orange red; very distinctive, splendid bedder, vigorous, handsome; a dependable sort.

MADAME MOSNAY.—Peculiar shade of carmine-lake, shaded to violet and white. Very distinct and striking.

Rare Novelties—Double Geraniums Price 20 cents each.

CURIOSA.—Large trusses of flowers of a delicate rosy-mauve color spotted with pink; large white eye. A fine, healthy grower.

PRESIDENT NEUMAN.—Immense trusses of clear orange-scarlet flowers produced in great profusion. A promising bedding variety.

VIRGINIA.—Delicate daybreak-pink shaded painted-rose with large white center. Large trusses on strong stalks. Very beautiful.

MME. OSCHE.—Vigorous growing, free blooming, enormous trusses, rich salmon shaded vermillion and violet with prominent white eye. Very distinct.

and for winter flowers inside nothing is more satisfactory. They are of the easiest culture, requiring to be kept cool and given plenty of air, with an occasional sprinkling of the foliage to clean and freshen it. Keep the roots moist, not too wet, and have good drainage in the pots. No other flower can take their place as a bed or border plant, and inside they grow beautifully throughout the year, making cheery house plants.

Our list of varieties include a number of rarely beautiful novelties as well as the very best standard sorts, and prices are so low as to place them within reach of everyone.

Rare Novelties Single Geraniums

Price, 20c each; set of 8 sorts, \$1.25.

FREDERICK PLESSIS.—Large trusses of well rounded florets. Color light scarlet shaded to large, white center, very striking.

JEAN LIONETT.—Grand trusses on stout heavy flower stalks. Color reddish purple, each floret maculated with orange in the center. Very distinct and beautiful.

LUCILE HILL.—Long upright stems; large trusses of beautiful ruffled form; perfectly circular florets of largest size; rich salmon shaded with rose, an excellent grower.

MARQUIS DE LONQUEUIL.—Rich geranium red shaded to light carmine with very large white center. Large trusses on fine strong stems.

MME. REYNARD.—Profuse bearer of fine trusses of bloom; rosy-amaranth, upper petals shaded flame scarlet, distinct white eye. A grand new sort.

PIERRE VIERGE.—Light salmon shaded and reticulated with white. One of the freest blooming sorts we have seen.

ROSAMIE.—Large trusses of fine flowers; delicate rose-color reverse of florets clear violet, the whole maculated with white. An excellent new sort.

MADONNA.—Exquisite round florets of delicate light pink with distinct white eye. Nice dwarf grower and very free-blooming.

METEOR.—Brilliant crimson maroon. A magnificent bedding variety.

MILDRED RIVAL.—Pure rose pink, with conspicuous white blotch on two upper petals.

MRS. E. G. HILL.—Very large trusses of single florets; color clear salmon, with a white center.

NUIT POITEVINE.—Trusses and florets of grand size; rich, rosy violet; the upper petals feathered with scarlet at their base. Very distinct and much admired.

HALL CAINE.—Very large round florets in numerous umbels. Light rich scarlet.

Rare Novelties—Double Geraniums Set of 8 sorts \$1.25.

BARON DE MONTAL.—Color rich rosy-magenta shaded fiery red at base of upper petals. Fine healthy growing sort of great beauty.

ELECTRE.—Rich deep cerise shaded vinous rose upper petals dashed with white at their base. Dwarf, compact growing and charming for bedding.

BLANCAFLEUR.—Fine new double white with flowers of wonderful purity of color. Sturdy growing and free blooming.

EUGENE CARRIER.—Enormous semi-double flowers of rich copper color shaded salmon-rose. Robust growth, trusses immense in size.



Twelve Fine Double Geraniums

Price, 10c each. Set of 12 sorts, \$1.00; postpaid, \$1.10.

ABBIE SCHAEFER.—Beautifully formed florets in fine large trusses, rich scarlet crimson of velvety texture.

ALPHONSE RICARD.—Immense trusses of large round flowers of the most vivid scarlet.

BEAUTE POITEVINE.—Very large, semi-double flowers of a brilliant salmon color. One of our best sorts.

FRANCIS PERKINS.—The finest pure pink variety we know of.

JEAN VIAND.—Soft rose color, shaded to white. Magnificent bedder.

MADAME LANDRY.—Distinct salmon pink. Lightly shaded scarlet. Magnificent trusses.

MARQUIS DE CASTELLANE.—Rich solferino-carmine of great brilliancy. Immense trusses robust grower, free bloomer.

MME. RECAMIER.—Snow white; strong, vigorous grower; flowers abundantly produced in large trusses.

MRS. LAWRENCE.—Beautiful satiny pink shaded to white; a gem among geraniums.

ORNELLA.—Intense bright scarlet. A grand bedding variety.

S. A. NUTT.—The best of the rich, dark crimson varieties; trusses massive.

SUZANNE DESPREZ.—Snow white, distinctly bordered with pink. Very striking.

Ivy Leaved or Trailing Geraniums

These are unexcelled as basket or window-box plants, as well as being useful in bedding, covering the ground quickly with their deep green, ivy-shaped leaves and brilliant colored flowers.

Price 15 cents each.

BALLADE.—Large double flowers of a tender lilac color, feathered with crimson.

CHARLES TURNER.—Brilliant pink, approaching scarlet. Upper petals nicely feathered maroon. Large trusses. Best of all ivy geraniums.

COLONEL BADEN POWELL.—The nearest approach to a pure white variety in this class of geraniums. Fine large trusses.

Set of 6 sorts 75c.

GARDEN GLORY.—Brilliant scarlet, upper petals veined crimson; rich and attractive.

INCOMPARABLE.—Exquisite shade of rosycarmine, sturdy growing and free blooming.

MRS. HAWLEY.—Soft rose-pink of silvery appearance. A beautiful variety.

Pelargoniums—Lady Washington Geraniums

Price 20 cents each.

CRIMSON KING.—Rich crimson blotched and feathered maroon. A superb dark colored variety.

DOCTOR ANDRE.—Elegant fringed flowers of delicate light pink feathered and blotched maroon.

EASTER GREETING.—Beautiful new variety, remarkable for its free blooming proclivities, being equally as fine bedded out as it is grown as a pot plant. The flowers are of a fiery amaranth red, each petal distinctly blotched maroon. A novelty of the greatest merit.

Set of 6 sorts \$1.00.

COUNTESS.—Very large flowers of distinct shade of rosy-cerise, upper petals marked with crimson.

MABEL.—Immense florets of round form and great substance. Color pure rose pink, heavily blotched and feathered chocolate-maroon. One of the best varieties.

MADAME VIBERT.—Flowers bright red blotched with black and maroon and edged with pink and white.

MADAME THIBAUT.—Rosy-pink marbled with strawberry and carmine and edged pure white.

Six Beautiful Flowering Begonias

Price, 10c each; set of 6 sorts, 50c, postpaid.

BERTHA CHATEROCHER.—Glossy green foliage covered nearly the year round with clusters of bright scarlet flowers. One of the best house plants we know of.

COMPTA.—Pointed purplish-green leaves with silvery shadings. Pure white flowers. A fine pot plant.

ARGENTEA GUTTATA.—Handsome erect growing sort, with pointed wine-colored leaves with silvery white spots; clusters of pure white flowers on the tips of the stems.

FOLIOSA.—The freest-flowering Begonia we have. Makes a handsome window plant, with its glossy green leaves and bright pink flowers.

MARGUERITE.—Bronzy green, with purple cast; large trusses of cream and rose-colored flowers.

GIANT RUBRA.—Strong growing sort with glossy green leaves, producing large panicles of bright salmon pink flowers drooping gracefully about the plant.

Rex Begonia

Grown for the beauty of their foliage. The leaves are large, variegated and margined with a peculiar silver-metallic gloss. The most ornamental of window plants; also useful in baskets and vases. We offer twenty of the most distinct and handsomely marked varieties.

Price, choice plants, each, 25c

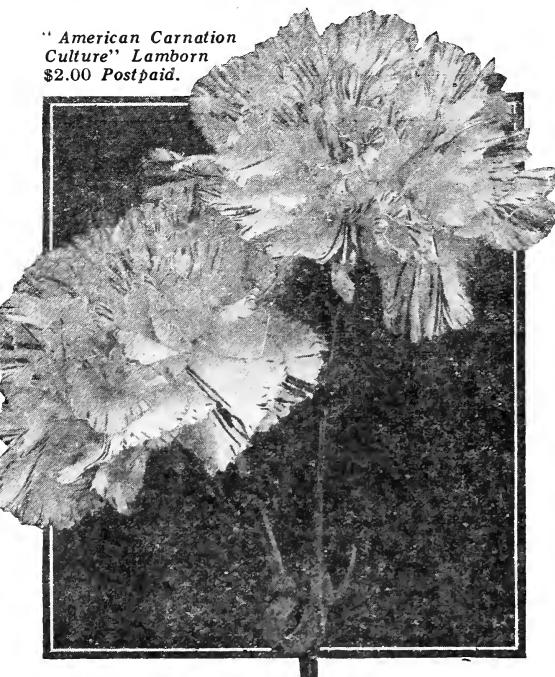


Rex Begonia

Choice Novelties in Carnations

CARNATIONS will thrive in any good fresh garden soil. After danger of frost is over, set 10 to 12 inches apart each way, cultivate and water as needed until they begin blooming, then mulch with light manure that has straw in it; plants should be staked or strung to support them. Carnations are easily grown in the house for Winter flowers.

"American Carnation Culture" Lamborn
\$2.00 Postpaid.



Price 20c each. Set of 7 sorts, \$1.00

ALICE COOMBES.—A beautiful new everblooming carnation of robust erect growth. Silvery rose-pink in color so greatly admired in this class of plants.

BELLE WASHBURN.—Very large bright scarlet flowers finely fringed and very fragrant. Free blooming sturdy branching grower. Believed to be the finest scarlet sort yet produced.

GOOD CHEER.—Large, handsome, well built flowers of a rich shade of deep pink, tinted with carmine. Remarkably free in bloom for such a large flowered sort.

MATCHLESS.—A wonderful new white variety produced by a famous hybridizer of New York State. Large massive flowers on strong upright stems. Sweetly perfumed.

PRINCESS DAGMAR.—A grand new everblooming carnation, producing very large flowers of a rich crimson maroon color. Its rich, velvety color is immensely popular.

PINK SENSATION.—Very large, heavily fringed flowers with exquisite fragrance. Color pure rose-pink with silvery shadings. Rank growing variety with long straight stems and leathery blue-green foliage. A superb new American seedling.

YELLOWSTONE.—Vigorous growing, free flowering new variety producing flowers of a dainty canary yellow lightly splashed and mottled with pink. A gem among fancy carnations.

Standard Everblooming Carnations

Price: 15c each; 4 for 50c; set of 12 fine varieties, \$1.25, postpaid.

ALICE.—Large nicely fringed, well formed flowers on stout stems. Color light pink with silvery shadings. One of the best sorts we have.

BEACON.—A bright, deep scarlet; a most perfect color, soft yet brilliant; the flower is of the largest size and perfectly double; nicely fringed; sweet.

BONORA.—A beauty; fancy variety of fine size and form, borne on long, stout stems. Color white flaked and splashed with red.

ELDORADO.—Deep golden yellow, splashed and striped with red; a very rich combination of colors and a novelty of much merit.

ENCHANTRESS.—Flowers very large, borne on long stems. The color is a superb shade of flesh pink. An early and continuous bloomer.

HERALD.—Flowers very large and massive with finely fringed petals and strong calyx. Stems long and very stout; color bright rich scarlet. A true everbloomer.

LADY BOUNTIFUL.—Pearly white flowers, produced on strong wiry stems. Nicely fringed and very fragrant.

MRS. C. W. WARD.—Simply superb, both in form and color; brilliant dark pink, of immense size.

PHILADELPHIA.—Greatly admired for its beautiful soft rose pink flowers. Very delicate and pretty.

POCAHONTAS.—Rich crimson-maroon flowers of fine size and build. A rarely beautiful variety.

WHITE ENCHANTRESS.—A pure white sport from the famous variety Enchantress, having the same general habit and characteristics. A superb flower.

VICTORY.—Intense scarlet of great brilliancy. Strong stout stems, holding the flower upright. One of the best sorts of its color.

Sweet Violets

Single Price, each, 15c; 8 sorts, \$1.00, postpaid. Double

BARONESS ROTHSCHILD.—Similar in color and form to Princess of Wales, but blooms more freely; single.

CALIFORNIA.—Very showy and beautiful flowers of enormous size, deep violet blue; deliciously fragrant; single.

WHITE CZAR.—Single white, very free flowering, popular with florists.

PRINCESS OF WALES.—Flowers single, of gigantic size; color a very rich shade of blue, and extremely fragrant.

ALASKA.—A grand sort, well adapted to garden culture, enormous double flowers of a deep blue-black color and powerful fragrance.

LADY HUME CAMPBELL.—Large double flowers of a beautiful light blue color; very free blooming and exquisitely fragrant.

MARIE LOUISE.—A constant bloomer, producing great quantities of large, double flowers, lovely deep violet purple.

SWANLEY WHITE.—The finest and best double white violet in cultivation.

Twelve Finest Exhibition Chrysanthemums

Price, 10c each; set of 12 sorts, \$1.00. Postpaid.

CHRYSELORA.—In our field trials during the past season this variety stood out pre-eminently as the finest yellow in the collection. Large, incurved flowers of elegant form.

CHARLES RASER.—Elegant, snow-white, incurved blooms of fine size and build. Comes on long, stout stems grandly clothed with luxuriant foliage. One of the finest new sorts.

C. H. TOTTY.—Large, fluffy flowers of a glowing chestnut scarlet; reverse of petals shaded gold. This grand sort impresses us as being the very finest red variety to date. Simply superb.

CLEMENTINE TOUSSET.—Creamy white, delicately laced with lilac and lavender; petals beautifully twisted and arranged. Fine large flower.

GOLDEN EAGLE.—Rich, golden yellow, immense size, very double; a grand, well-built flower, with splendid stem and foliage. A sure prize-winner.

DR. ENGUHARD.—Flowers delicate pearl-pink; large, beautifully incurved; very double and of exquisite form.

MAJOR BONNAFFON.—Soft, clear yellow, full in the center, eight inches in diameter and nearly as deep; perfect form.

MATCHLESS.—Largest and most beautiful dark crimson scarlet yet raised; looks like crimson velvet; the color long desired. Superb in the garden.

CHIEFTAIN.—Color a beautiful shade of Enchantress, or flesh pink. Perfectly incurved flowers of remarkable waxy appearance. Sturdy grower with handsome, leathery foliage. A fine thing.



POLYPHENE.—A gem in every sense of the word; magnificent in size, form and color. Its informal character of build and rich canary yellow color need only to be seen to be appreciated.

ROMAN GOLD.—In this fine variety we have secured a sort which for richness of color excels all other yellow varieties to date. Comes shaded with bronze in cool weather.

TIMOTHY EATON.—The largest globular Japanese incurved variety yet raised. Form round and perfect; color, creamy white; growth, vigorous, with large, dark green foliage.

Rare New Japanese Chrysanthemums

Price, 15c each; set of 12 sorts, \$1.25.

ALICE SOLOMON.—Large globular incurving flowers of snowy whiteness. Profuse in bloom and free growing.

D. B. CRANE.—Bold incurved flowers of wonderful substance. Color golden yellow distinctly splashed with red. Very distinct and novel coloring.

EARLY FROST.—Large pure white flowers of perfect incurved form and fullness. Flowers very early and remarkably free.

EDWIN SEIDEWITZ.—Exquisite bright pink flowers of perfect incurved form produced on stout stems with much freedom. One of our finest new cut flower sorts.

GOLDEN QUEEN.—Deep golden yellow blooms of fine size and build. Petals nicely incurving and full to the center.

MANKATO.—Of sturdy upright growth producing stout stemmed flowers of fine size. Color amaranth red shaded to purplish rose. Petals reflexing and interlacing in beautiful manner. Very distinct.

MARIGOLD.—A giant in growth producing very large incurved golden yellow blooms of phenomenal boldness. Handsome foliage. Early blooming. One of our finest new ones.

MRS. B. E. HAYWARD.—Rich bright pink shaded to silvery pink. Of improved incurved form and very dwarf habit requiring little staking.

ODESSE.—The greatest exhibition yellow yet produced. Flowers of immense size, filled with a myriad of incurving petals, requiring a long season to mature.

TEKONSHA.—Very large loosely incurving blooms of a rich golden bronze color. A most beautiful shade of color. Fine healthy dwarf habits of growth.

PREFET TILLIES.—Rich crimson scarlet, reverse of petals, golden yellow; fine, sturdy growing variety, very free blooming.

WHITE CHIEFTAIN.—A sport from the variety Chieftain having all the fine characteristics of that fine sort except that the flowers are pure white. Dwarf sturdy habit, long fringe like petals of the most perfect form.

Free Blooming Fuchsias

Price, 10c each; set of 6 sorts, 50c.

ELSA.—Sepals rose-pink, corolla rosy purple. A fine large bloom.

JUPITER.—This is a grand mammoth double flowered Fuchsia; flowers of enormous size, very large, rich purple violet corolla; tube and sepals bright crimson.

MOLESWORTH.—Fine, large and elegant form, sepals long and reflexed, pure red; corolla large double white.

SPECIOSA.—A winter blooming variety producing very long narrow flowers, tube and sepals blushing pink, corolla bright carmine.

STORM KING.—Superb double white variety well known to all plant lovers.

TRAILING QUEEN.—Tube and sepals rosy-scarlet, corolla violet purple. Of trailing habit of growth, fine for baskets and window boxes.



Vegetable Plants

WE grow large quantities of vegetable plants, and can supply all the kinds listed below, in their proper season, in most any quantity. We have made arrangements this year so that we can supply all vegetable plants in two grades. If you want a quantity of plants write us early.

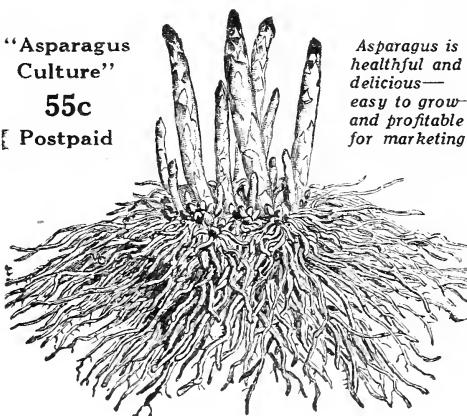
Transplanted plants are much stronger and better rooted, and are well worth the price, especially in the early part of the season. We can supply most any of the leading sorts. No plants sent C. O. D.

Write for prices on large orders

"Asparagus Culture"

55c

[Postpaid



Asparagus

ONE-YEAR-OLD PLANTS--Postpaid, 25c doz., 75c per 50; \$1.00 per 100; by express or freight, 20c dozen; 50c per 50; 75c per 100; \$6.00 per 1000.

TWO-YEAR-OLD PLANTS--Postpaid, 40c per dozen; \$1.00 per 50; \$1.50 per 100; by express or freight, 25c dozen; 75c per 50; \$1.00 per 100; \$8.00 per 1000.

SWEET POTATO PLANTS—OREGON GROWN—See Page 136

	Postpaid	By express
CABBAGE--	Dozen	100
Early or late kinds, transplanted	\$0.20	\$0.75
Not transplanted.....	.50	4.00

Add 15c per 100 for Cabbage Plants by mail.

	Postpaid	By express
CAULIFLOWER--	Dozen	100
Early Snowball, transplanted	\$0.30	\$1.25
Not transplanted.....	1.00	7.00
Late kinds, transplanted.....	.30	1.00
Late kinds, not transplanted.....	.75	6.00

Add 15c per 100 for Cauliflower Plants by mail.

	Postpaid	By express
CELERY--	Dozen	100
Leading kinds, transplanted	\$0.30	\$1.00
Not transplanted.....	.50	5.00

	Postpaid	By express
TOMATOES--	Dozen	100
Leading kinds, transplanted	\$0.30	\$1.00
Not transplanted.....	.75	6.00

Add 25c per 100 for Tomato Plants by mail.

CHIVES (Schnittlauch), per bunch..25c .15c

Hop Vines

ENGLISH CLUSTER—The best sort.

Strong roots, postpaid, 5c each; 35c per dozen. By express, 25c per dozen; \$1.50 per 100.

Write for prices if wanted by the 1000.

Horse Radish

Postpaid, 5c each; 35c per dozen. By express or freight, 25c per dozen; \$1.50 per 100.

Write for prices by the 1000.

Flavoring and Medicinal Herbs—Plants

PEPPERMINT

Mentha piperita—Black stem.

This is the variety used for the production of the valuable essential oil of commerce.

PLANTS are propagated by root cuttings and can be set from February to May inclusive, depending upon the weather and soil conditions; can be harvested in August or September, and will give a full crop the first year. It is customary to plant one ton of roots to the acre in rows three feet apart. Cultivate the first year only. A 50 lb. sack of roots will plant 100 feet of row. This hardy variety is perennial and once planted will last for years.

Root cuttings are furnished for propagation at the following prices:

50-lb. trial sack, will grow a row 100 feet long	\$.2.00
Per ton.....	30.00

1. o. b. Willamette Valley shipping point.

THYME.—Broad leaved, used in soup, stuffing and sauce.

Each, 25c; doz., \$2.50

SWEET MARJORAM.—The sweet aromatic leaves are used in either the green or dry state.

Each, 20c; doz., \$2.00

SAGE (Giant).—The leaves and tender tops are used in stuffings and sauce; also in the beverage known as Sage Tea. The Giant or Mammoth Sage is a greatly improved variety, more vigorous, having much larger leaves.

Each, 15c; doz., \$1.50

CHIVE.—Has mild onion flavor, grows in grass-like clumps; much used for flavoring.

Each, 15c; doz., \$1.50

LAVENDER.—By distillation produces the well-known Lavender water, the flowers for perfuming wardrobes, etc.

Each, 25c; doz., \$2.50

ROSEMARY.—Infusions of the leaves are used in medicinal beverages. Produces an aromatic oil.

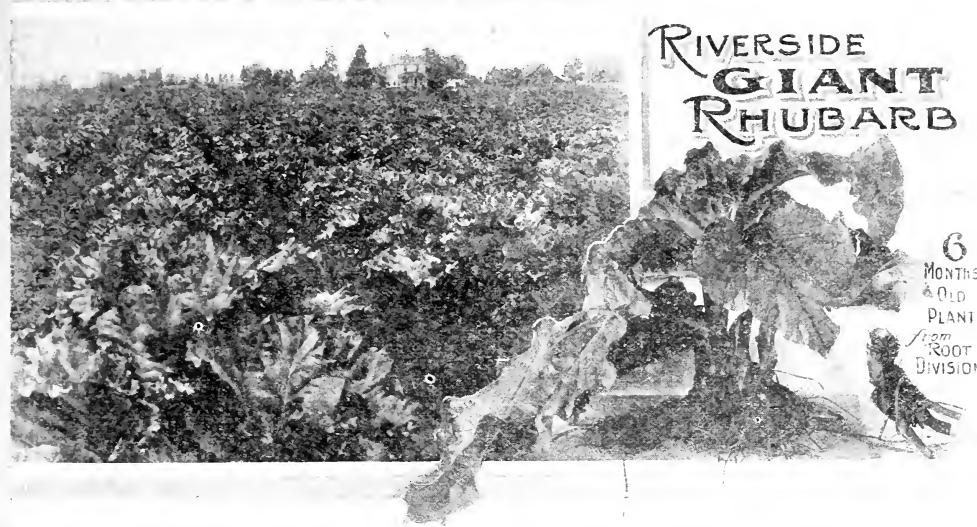
Each, 25c; doz., \$2.50



An Oregon Field of Mint

RIVERSIDE GIANT RHUBARB

6
MONTHS
OLD
PLANT
from
ROOT
DIVISION



RIERSIDE GIANT RHUBARB is a cross between the California Wine Plant and Victoria Mammoth,—the famous private stock produced by Mr. A. R. Cummings of Canby, Oregon, that has been the leader in Portland and San Francisco markets for several seasons. Roots being offered for sale for the first time last season as heretofore Mr. Cummings has used all the stock for his own planting, but the market has grown to such an extent and the demand from growers for stock cannot be longer denied, so Mr. Cummings has arranged with us for the exclusive sale.

RIVERSIDE GIANT is unequaled for yield and quality, being crisp, tender, free from stringiness, with a good color and a delicious, distinctive flavor. The skin is so thin that it disappears in cooking. Riverside Giant has every good quality of a commercial rhubarb and is so vigorous and productive that over thirty-five tons per acre is a conservative estimate for the season. Cuttings begin in March and usually four are made, the last one in July. Four men in six hours have cut over five tons from less than one-half acre on the fourth cutting.

No other variety of rhubarb is known in the Portland or San Francisco markets that has the uniformity and fine coloring, the flavor, the freedom from coarseness and stringiness, that has made Riverside Giant the leader, and we know of no other variety that has been produced in a large commercial way successfully, Mr. Cummings being the only man that has ever shipped rhubarb in car lots to the San Francisco market, sending as many as three a month in season.

Two cars of Riverside Giant Rhubarb were shipped to The Dalles for drying, and on the test proved to be the best variety for that purpose, containing more substance and not having a tough skin.

RIVERSIDE GIANT is not only the most productive and profitable hardy rhubarb, but is also the best yielding and finest in quality when forced of all forcing varieties. Full instructions and information on forcing will be sent on request.

We have the exclusive sale of this wonderful rhubarb and offer root divisions from the original stock. Each root will make a thrifly plant if properly cared for.

PRICE—each, 15c; dozen, \$1.25; \$8.50 per hundred, prepaid. Special prices on large lots.

Root divisions must be made from young healthy stock, cuttings from old roots will give poor returns.

BURBANK CRIMSON WINTER RHUBARB

A widely-advertised, forcing variety of great value, the flavor and quality being superior to any other rhubarb. Comes on very early and lasts through a long season, hardy in some sections, but gives best results when protected. Must be propagated from root divisions, as it does not come true from seed. **Root divisions, each, 15c; \$1.25 doz., postpaid; \$8.00 per 100. Root clumps, each, 50c; \$4.00 doz.**

VICTORIA MAMMOTH--STANDARD HARDY VARIETY

ONE-YEAR-OLD ROOTS--Postpaid, 8c each; 75c per dozen. By express or freight, 50c per dozen; \$3.00 per 100.

TWO-YEAR-OLD ROOTS--Postpaid, 15c each; \$1.25 per dozen. By express or freight, 85c per dozen; \$6.00 per 100.

If wanted in larger quantities write for special prices.

WAGNER'S GIANT

A larger, heavier yielding variety than the Crimson Winter. Our stock is locally grown from root divisions only and will be found true and uniform. Does not run up as many seed stalks as the Crimson Winter and in our experience has proven better in every way.

Price: Root divisions, each, 15c; \$1.25 doz.; \$8.00 per hundred, prepaid.

Price: Root Clumps, each 50c; \$4.00 per doz.

FULL INFORMATION and cultural directions for growing Riverside Giant Rhubarb in the open ground, and for forcing, will be sent to all interested. Every home garden should have a few plants of this wonderful new rhubarb.

WE HAVE MADE THE PRICE of "RIVERSIDE GIANT" so low that you cannot afford to plant any other Rhubarb.



STRAWBERRY PLANTS



DIAMOND Quality" Strawberry Plants are large, vigorous and healthy. They are heavily rooted and have large, full crowns; have been carefully grown, and are free from disease and pests. We dig as ordered and pack for shipment in ventilated crates of 500 plants each. **They are grown from our select strains and are always true to name; no substitution** is ever allowed without instructions from the purchaser.

Our select strains of **New Oregon, Gold Dollar, Marshall, Magoon, Clark's Seedling** and other Western varieties, many of which were introduced by ourselves, still hold their position as the **leading commercial varieties of the Northwest**, and are being planted more extensively each season. Thus demonstrating by actual market and growing tests the great superiority of our Western varieties, against the keenest competition from all sections.



**Big
Healthy
Well
Grown
Plants.**

**Ask for
Free
Book,
"Straw-
berry
Culture."**

Care For and Feed Your Plants

Neglect is the prime factor in strawberry failures, and most strawberry beds suffer from lack of attention and starvation. Proper fertilization and intelligent culture insure enormous crops of finest fruit and freedom from diseases and pests. White grubs, cutworms, crown miners, etc., can all be controlled by preventive measures. Never set strawberries in or near clover sod or hay fields. Such ground should have at least two years cultivation before using for strawberries. Remove the mulch directly after fruiting. This helps to control many evils. For helpful details of care and culture, see our **Strawberry Booklet, 32 pages, sent free on request.**

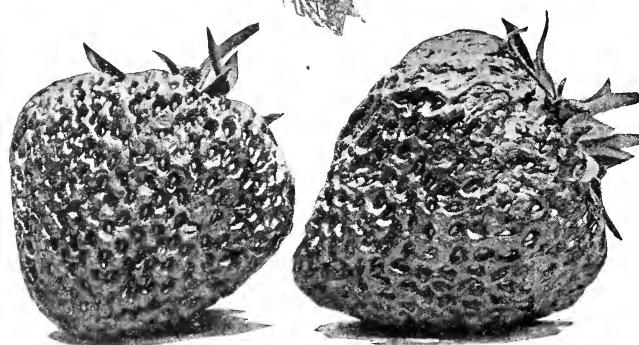
NEW OREGON Our Own Introduction

Best, Most Uniform and Heaviest Yielding Main Crop Strawberry

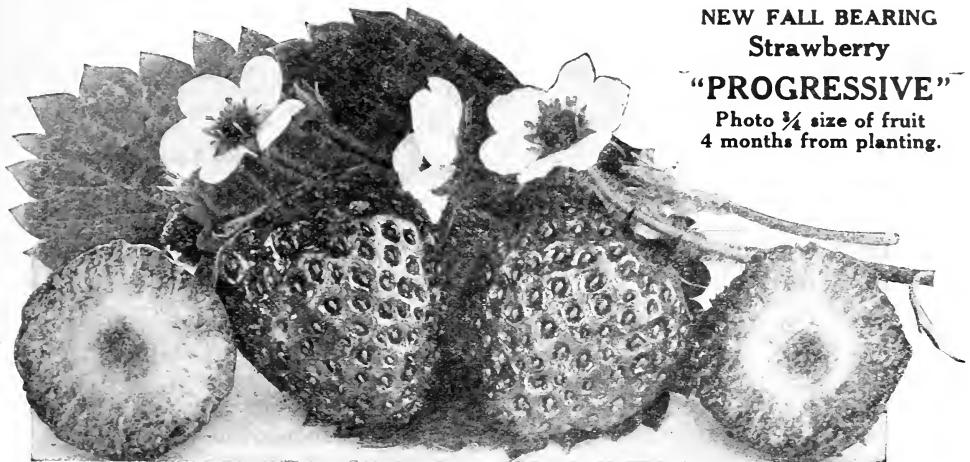
"**NEW OREGON**" is large, firm and of fine form, averaging 15 to the quart box, color a brilliant, deep, rich red, having a glossy varnished appearance when fully ripe. This dark blood red coloring extends through to the very center, and, no matter how large,

"**NEW OREGON**" is never hollow. When fully ripe the distinctive flavor is suggestive of the wild berry, is crisp and delicious, and will remain on the vine for three days without injury, keeping perfectly for many days after picking; stands handling and long shipments and will hold its color, shape and flavor when canned.

"**NEW OREGON**" is an early and continuous bearer, being ready for marketing the first half of May in the Willamette Valley and holds up in size and quality throughout the season, which in some localities extends until frost.



 The strawberries here offered have all stood the market test and you will be safe in selecting any one of them that will suit your conditions and requirements. They are the best varieties obtainable


 NEW FALL BEARING
Strawberry

"PROGRESSIVE"

 Photo $\frac{1}{4}$ size of fruit
4 months from planting.

Fall or Everbearing Strawberries

The new varieties of Fall bearing Strawberries, also known as "Everbearing," are very satisfactory for home gardens and under some conditions will prove profitable commercially, but require special care and attention to secure best results as the late fruit will be small and yield less if the first blossoms are not removed and the plants are allowed to fruit early and continuously. When properly grown they are of splendid quality and yield heavily until frost. We offer "Progressive" and "Superb," the most popular varieties.

Progressive

The berries are shapely, of a rich, red color, firm and of delicious flavor. Good keepers and shippers. Progressive will bear as early as most varieties, but blossoms should be cut back about 4 weeks before the berries are wanted. In our experience Progressive is the best of the "Everbearing" varieties.

Per doz., 50c; 25 Plants, 75c; 100 plants, \$1.75, postpaid; Frt. or Express, \$1.35 per 100; \$3.00 per 250; \$10.00 per 1000.

Superb

Considered by some as being the best of the everbearing class, they are of large size and splendid appearance, and the quality is fully equal to that of the best of the standard sorts. Fall or Everbearing strawberries sell at a good price and are always in demand.

 Standard Varieties of Strawberries
Gold Dollar—Extra Early

Clark's Seedling

No early strawberry we have ever known equals our special strain of "Gold Dollars."

Gold Dollar berries are large size, dark red all through, and have fine flavor. Foliage heavy, large and spreading, which protects the blooms from early frosts. Has a perfect bloom, and strong stems that hold the berries up from the ground, which helps to keep color and flavor during the early rainy season.

Gold Dollar Strawberries are the standard early berry in the big markets of the Northwest, and are always in demand. They are sure, heavy cropers, keep up their size throughout the season, and command the highest prices. They are the handsomest, most prolific early strawberry.

Wilson

An old standard variety; a heavy bearer of fine, moderate-sized berries; sharp acid flavor and the leading sort for canning.

Price List of Plants

	By mail, postpaid	F. O. B. Portland	
Dozen	100	100	1000
Clark's Seedling.....	\$0.30	\$1.00	\$0.60
Gold Dollar.....	.30	1.00	.60
Magoon.....	.30	1.00	.60
Marshall.....	.30	1.00	.60
NEW OREGON—IMPROVED.....	.30	1.00	.75
Wilson.....	.30	1.00	.60

Not less than 500 plants of a kind at 1000 rate. Special prices on 3000 or more.

FREE ON REQUEST, OUR 32-PAGE BOOK ON STRAWBERRY CULTURE Complete and up-to-date. Things you should know about Strawberries. **FREE**



Fruit Trees and Bushes

Our large 66-page Nursery Catalog contains a complete list with full description and illustrations of Fruit, Shade and Ornamental Trees, Shrubs, Climbers, etc. We would be pleased to mail a copy to anyone interested. We give below and on the following page a condensed price list. We can supply all reliable and standard sorts.

Apples

	Each	Per 10
2 years.....	\$0.25	\$2.00
1 year, 4 to 6 feet.....	.20	1.75

Apricots

	Each	Per 10
2 years.....	.30	2.75
1 year, 4 to 6 feet.....	.25	2.25

Cherries

	Each	Per 10
2 years.....	.50	4.00
1 year, 4 to 6 feet.....	.40	3.50

Pears

	Each	Per 10
2 years.....	\$0.35	\$3.00
1 year, 4 to 6 feet.....	.25	2.00

Peaches

	Each	Per 10
1 year, 4 to 6 feet, branched.....	20	1.75

Quince

	Each	Per 10
2 years.....	.50	4.00

Currants

	Each	Per 10
2 years.....	.15	1.25
1 year.....	.10	.75

Extra large, selected bushes..... .25

Grapes

	Each	10	100
2 years.....	\$0.15	\$1.25	\$8.00

Crab Apples

	Each	Per 10
2 year trees.....	\$0.25	\$2.25
1 year, 4 to 6 feet.....	.20	1.75

Plums

	Each	2.00
2 years.....	.25	2.00
1 year, 4 to 6 feet.....	.20	1.75

Prunes

	Each	1.80
2 years.....	.20	1.80
1 year, 4 to 6 feet.....	.15	1.35

Raspberries—Red

	Each	100
Best Red Sorts, 2 year.....	\$0.08	\$0.75
1 year, 4 to 6 feet.....		\$4.00

Raspberries—Black Cap

	Each	100
Choice well-rooted plants.....	\$0.10	\$0.90
Low prices by the thousand.		\$6.00

Gooseberries

	Each	100
2 years.....	\$0.12	\$1.00
1 year.....	.10	.80

Blackberries

	Each	100
Standard sorts.....	\$0.08	\$0.60
Oregon Evergreen.....	.12	1.00

Specialties in Berries for Market or Garden

LOGAN BERRY.--(Raspberry-Blackberry).—Prices: Two-year-old, 15c each, \$1.50 per doz., postpaid; by express or freight, \$1.25 per doz.; \$7.50 per 100.

One-year-old (tips), 15c each; per 12, \$1.25, postpaid; by express or freight, \$1.00 per doz.; \$6.00 per 100. Low prices by the 1000.

BURBANK'S PHENOMENAL.--Prices: Two-year-old, 15c each; \$1.50 per doz., postpaid; by express or freight, \$1.25 per doz., \$7.50 per 100.

DEWBERRY, LUCRETIA.--Price: Each, 15c; per 10, \$1.25, postpaid; by express or freight, 75c per 10; \$5.00 per 100.

HIMALAYA GIANT.--Each, 15c; dozen, \$1.50, postpaid. Freight or express, each, 10c; doz., \$1.00; 100, \$7.50.

NEW MAMMOTH.--Prices: Two years old, each, 15c; doz., postpaid, \$1.50; by express or freight, \$1.25 per doz.; 100, \$7.50.

THE IMPROVED SUPERLATIVE RASPBERRY.--Price: Each, 15c; doz., \$1.40, postpaid; freight or express, doz., \$1.00; 100, \$9.00.



Grown Near Salem

Sweet Potato Plants

You can grow sweet potatoes easily if you plant the right varieties and set them out after the ground is warm. Rich sandy bottom land is best, but any good garden soil will give good returns.

We have always depended on the South for plants, but this year we offer

Oregon grown plants for seasonable delivery, per doz., 30c; 100, \$1.00, postpaid.

F. O. B. Portland, doz., 25c; 100, 75c; 1000, \$7.00.

Fruit and Ornamental Trees, Berry Bushes and Plants, Roses and Flowering Bulbs—New and improved varieties for Northwestern growers fully described in our 64-page illustrated Autumn Catalog. Mailed Free on Request.

"DIAMOND QUALITY" BEE SUPPLIES FOR WESTERN BEE KEEPERS

WE ARE THE PIONEERS in the Bee Supply business in the Northwest, are thoroughly familiar with local conditions and requirements, and if you are new to the business or the country we can be of much help in saving you any unnecessary outlay, work or loss of time and can start you on the right road to success.

STOCKS ARE LARGE and complete and we can fill any size order on short notice and will give the small order just as careful attention as the larger one.

THE A. I. ROOT CO.'S HIVES AND SUPPLIES well-known the world over as the standard of excellence are always on hand for prompt delivery at lower prices than you can purchase them for direct, as we are agents for the Root Company and give our customers the advantage of car rates.

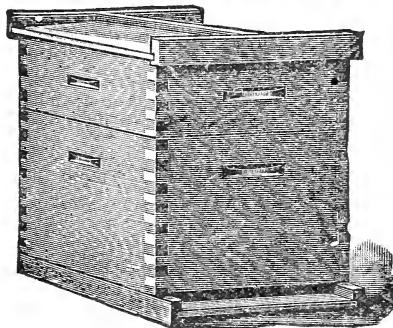
WESTERN PINE AND CEDAR HIVES made to our order in standard sizes and designs; of first-class material and workmanship, are very popular with local bee keepers. Our Western lumber is satisfactory and lasting and we recommend them as being economical and serviceable.

Portland Seed Co.'s Dovetailed Western Cedar Hives

These cedar hives are made especially for our Western trade. In construction they are the same as our pine hives, the only difference being that they are made of a superior quality of cedar, the best and most lasting wood for our Western climate. The sections and separators used in the supers are the regular No. 1 Eastern stock. Price and quality considered, these hives are splendid bargains.

PRICES	Each	K. D.	Packed	Weight
	Nailed	5	10	of 10
Fig. 1-8	\$2.25	\$10.50	\$20.00	275
Fig. 2-8	2.05	9.50	18.00	250
Fig. 1-10	2.45	11.35	21.75	270
Fig. 2-10	2.25	10.25	19.50	252
Fig. 10-8	2.55	11.60	22.25	300

For description of numbers, see those given for our pine hives at bottom of page.



P. S. Co.'s Dovetailed Western Pine Hives

This is our lowest priced hive and is the best value we can offer. It is standard size and well and carefully made of first-class lumber. The inside fixtures are just the same as in our regular pine hives, and the sections supplied are of the best grade of white Eastern basswood. For general description of the different numbers see corresponding numbers and descriptions under Eastern Pine Hives, bottom of page.

Fig. 1-8	Each	K. D.	Packed	Weight
	Nailed	5	10	10
\$2.00	\$9.25	\$17.50	280	
Fig. 1-8, less Super. 1.40	6.45	12.25	205	Fig. 2-8

Fig. 2-8	Each	K. D.	Packed	Weight
	Nailed	5	10	10
\$1.80	\$8.25	\$15.50	265	
Fig. 2-8, less Super. 1.35	6.10	11.75	195	

Portland Seed Company's Dovetailed Eastern Pine Hives

Descriptions and Prices

Order by Number. Five Hives at Same Rate as Ten.

Fig. 1. DOVETAILED HIVE.—(Complete with 1 super) consists of 1 bottom board, 1 body, 1 super, 1 cover, 8 Hoffman brood frames, 1 division board, 2 tightening springs for super, 6 section holders, 6 slotted separators, 24 sections and foundation starters for frames and sections and nails.

Nailed, \$2.55 each; per 10 K. D. flat, \$23.00.

Fig. 2. DOVETAILED HIVE is the same as No. 1, less sections and foundation starters.

Nailed, \$2.35 each; per 10, K. D. flat, \$20.50.

Fig. 3. DOVETAILED HIVE is the same as No. 1, except it has two supers instead of one.

Nailed, \$3.40 each; per 10, K. D. flat, \$30.50.

Fig. 4. DOVETAILED HIVE is the same as No. 3 less sections and foundation starters.

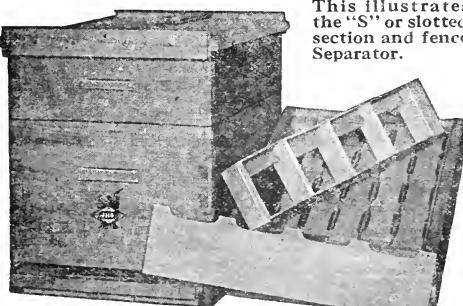
Nailed, \$3.05 each; per 10 K. D. flat, \$26.50.

Fig. 10. DOVETAILED HIVE (complete two-story for extracting), consists of one bottom board, 2 bodies, 1 cover, 16 Hoffman brood frames, 3 division boards and nails.

Nailed, \$2.80 each; per 10 K. D. flat, \$24.50.

This hive is similar to the Root Dovetailed Hive except that it is made from a little different kind of Eastern Pine, but is first-class.

This illustrates the "S" or slotted section and fence Separator.



P. S. Co.'s Fig. 1 (AE64S) Hive for 4 1/4-4 1/4-1 1/2 Sections

Division Boards, Wt. 5 oz. per 10,	Ea., 10c;	10, 90c
Tightening Springs	Ea., 1c;	10, 8c
Followers	Ea., 5c;	10, 45c

We advise the use of the above combinations, but if you want sections or separators of other designs, make note in your order.

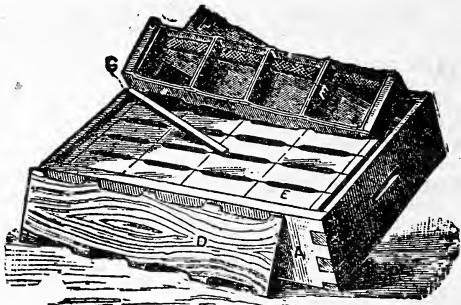


Portland Seed Co.'s Dovetailed Supers

Unless otherwise ordered we always send 8 super for the regular stock $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{8}$ sections and wood separators. (See cut.)

Nailed P'ck'd in Flat Wt.
or K. D. 5 10 of 10

Fig. 1-8 Pine.....	\$0.90	\$4.00	\$7.75	75
Fig. 1-8 Western Pine....	.85	3.65	7.00	75
Fig. 1-8 Cedar.....	.90	3.90	7.50	70
Fig. 2-8 Pine.....	.80	3.30	6.25	65
Fig. 2-8 Western Pine....	.65	2.75	5.25	65
Fig. 2-8 Cedar.....	.70	3.00	5.75	60
Fig. 8-8 Extracting Super.	.85	3.75	7.50	80
Fig. 0-8 Empty Wes'n Pine	.30	1.40	2.65	40
Fig. 0-8 Pine.....	.35	1.65	3.25	40
Fig. 0-8 Empty Cedar....	.35	1.65	3.20	40



Super, Designated as 4 or Fig. 1-8—Complete.

For Description of Super Number See Corresponding Number Describing Hives.

Root's Hive Combinations and How to Understand Them

To accommodate various localities and bee keepers of different preferences, we have a large number of different combinations, and each combination is indicated by a series of letters and figures. A glance at the following table showing the meaning of each letter or figure in alphabetical and numerical order will make all plain.

- A. Danzenbaker bottom.
- E. Excelsior cover.
- G. The gable cover.
- I. Super for Ideal plain sections, $3\frac{1}{2} \times 5$.
- M. Super 4×5 plain sections for the Danz. hive.
- P. Super equipped for plain $4\frac{1}{4}$ sections
- Rc. Metal roof, double cover.
- S. Super for $4\frac{1}{4}$ beeway sections.
- 2. Super with section holders, separators or fences, but no sections or foundation.
- 4. Super with section holders, separators or fences, sections and foundation starters.
- 5. Hive body or brood chamber, with frames and division board but no starters.
- 6. Hive body or brood chamber with frames, division board, and foundation starters.

- 7. Complete Hive Body with full sheets of foundation, without cover or bottom.

- 8. Indicates hive with 8 brood frames.

- 10. Indicates hive with 10 brood frames.

When the figures are doubled, it indicates that two of the articles are called for. For instance, 2-2P means two supers with plain section holders and fences.

If you desire a Danz bottom-board, Excelsior cover, 8-frame dovetailed hive with frames, foundation and super with section holders, $4\frac{1}{4}$ plain sections, fences and foundations, the number would stand thus: AE64P-8.

If you wish two supers, in place of the one you would add another figure 4, and the whole would read for 8-frame hive; or if you wanted this same combination without foundation or sections, the designation would be AE522P-8.

Improved Appliances of the A. I. Root Co.

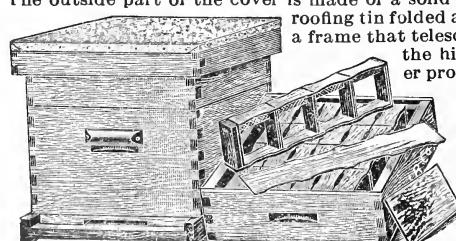
DANZENBAKER HIVES.—These hives take the same Cover, Bottom Board and Super as the ten-frame dovetailed hive, but the Brood Chamber is more shallow, taking ten closed end Brood Frames $7\frac{1}{2}$ inches deep and 17 inches long; each is supported by a pivot in the center of the end bars, a great improvement, as the frames can be reversed and filled out to the ends: it also prevents bees mashing in handling.

The Section Holder has the same kind of Pivot Support, and a fence separator is used. The Section is a plain $4 \times 5 \times 1\frac{1}{8}$, a size and shape that is very pleasing to the eye, and therefore a good seller. The arrangement in the super is such as to get perfect results in filling out the sections, and in no other hive are they so uniformly and attractively finished. While the Danz. Hive is more shallow than the standard Langstroth it has exactly the same Cubic Capacity as the eight-frame Dovetailed Hive. For prices see page 139.



The Danzenbaker Hive is Specially designed for the production of Fancy Comb Honey.

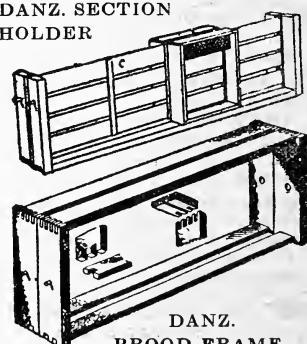
DANZ. SECTION HOLDER



Showing Rc Cover

For Price of Rc Covers see page 139.

Add 25c per
hive when Rc
cover is ordered



DANZ.
BROOD FRAME



Dovetailed Hives and Fixtures—Continued

Root's Dovetailed Pine Hives--Different Combinations	Each Nailed	K. D. in Flat	Wgt. of 10
HIVES:		5	10
Fig. 1 (A-E or A-G, 6-4, S or P) 8 frame body and 1 super, all complete with starters.....	\$2.85	\$13.00	\$25.50
Fig. 1 (A-E or A-G, 6-4, S or P) 10 frame body and 1 super, all complete with starters.....	3.00	13.75	27.00
Fig. 2 (A-E or A-G, 5-2, S or P) 8 frame body and 1 super, all complete less section and starters.....	2.55	11.50	22.50
Fig. 2 (A-E or A-G, 5-2, S or P) 10 frame body and 1 super, all complete less sections and starters.....	2.70	12.25	24.00
Fig. 3 (A-E or A-G, 6-4-4, S or P) 8 frame body and 2 supers, all complete.....	3.75	17.00	33.50
Fig. 4 (A-E or A-G, 5-2-2, S or P) 8 frame body and 2 supers, all complete, less sections and starters.....	3.30	14.75	29.00
(A-E or A-G, 6) 8 frame body only, with frames, division board and starters, cover and bottom board.....	2.10	9.40	18.25
(A-E or A-G, 8) 8 frame body only, with frames, division board and no starters, cover and bottom board.....	2.00	9.00	17.50
Fig. 10 (A-E or A-G, 5-5) 8 frame body, two story.....	2.95	13.25	26.00
(A-E or A-G, 5-5) 10 frame body	3.15	15.00	28.00
HIVE BOTTOM:			
A-Danzenbaker bottom-8.....	.40	1.85	3.50
HIVE COVERS:			
E-Excelsior or G-gable cover-8.....	.50	2.25	4.35
Rc cover 8 fr.....	.75	3.75	7.00
Rc cover 10 fr.....	.80	4.00	7.50
HIVE BODIES (Brood Chamber):			
Empty body for 8 frames 9 1/2 inches deep with tin rabbets.....	.75	3.50	6.60
5-Body-8, with frames and division board.....	1.10	5.00	9.75
6-Body-8, with frames, division board and starters.....	1.15	5.25	10.25
SUPERS:			
Fig. 1 (4 P, S or I) 8, all complete with starters and sections.....	1.00	4.50	8.60
Fig. 1 (4 P, S or I) 10, all complete with starters and sections.....	1.05	4.75	9.10
Fig. 2 (2 P, S or I) 8, all complete, less starters and sections.....	.85	3.15	7.00
Fig. 2 (2 P, S or I) 10, all complete, less starters and sections.....	.90	4.00	7.50
Fig. 0 Plain supers, with flat tin; empty .....	.45	2.00	3.80
DANZENBAKER HIVES:			
A E D, 6-4 M-10.....	3.40	15.75	31.00
A Rc D, 6-4 M-10.....	3.60	16.75	33.00
A E D, 5-2 M-10.....	3.10	14.25	28.00
A Rc D, 5-2 M-10.....	3.30	15.25	30.00
A E D, 5-10.....	2.05	9.25	18.00
SUPERS:			
Danz. 4 M-10 super.....	1.40	6.50	12.50
Danz. 2 M-10 super.....	1.20	5.50	10.50

Note.—D, Danzenbaker cover; M, Danzenbaker super

Hoffman Brood Frames

The Hoffman Improved Foundation Fastening Frames (see cut) are the latest, most satisfactory brood frames. The top bar is made with a beveled strip, which holds the foundation absolutely in place, perfectly straight and exactly in center of top bar. Any one can put foundation in these new frames very rapidly.

PRICE OF HOFFMAN FRAMES.

Wt. per 10	Per 100	Wt. per 10	Per 100
Improved F. F. Root's..	4 1/2 lbs.	40c	\$3.50
Improved F. F. P. S. Co.'s.	4 1/2 lbs.	35c	3.25
Western.....	4 1/2 lbs.	35c	3.00
Half Hoffman.....	2 1/2 lbs.	30c	2.90
Danz. Reversible.....	2 1/2 lbs.	40c	3.50

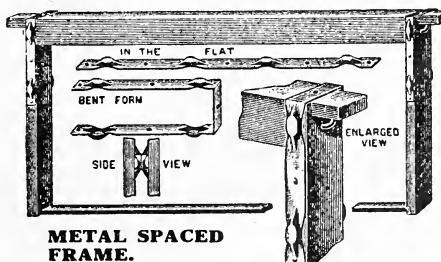
The Half Hoffman Frame is used in the ideal super and for extracting only.

Section

Six section holders with separators, one follower and wedge are put in each super, and each section holder holds four one-pound honey boxes. The bottom strip is $\frac{1}{4}$ -inch thick, and is cut out to fit insets of sections.

Root's $1\frac{1}{8} \times 18\frac{1}{8}$ inches, slotted. Wt. 23 lbs. per 100. Each. 3c; per 100. \$2.80

P. S. Co.'s $1\frac{1}{8} \times 18\frac{1}{8}$ inches, slotted. Wt. 23 lbs. per 100. Each. 3c; per 100. \$2.70



New Metal Spaced Frame

Recommended where there is much propolis. Spacing is accurate and frames handle easily.

Price, per 10, 50c; 100, \$4.25. Wt. per 10, 5 lbs.

METAL SPACERS ONLY
Per 100 Pair. Wt. 1 1/4 lbs. \$1.00

Holders

Western, $1\frac{1}{8} \times 18\frac{1}{8}$ inches, slotted. Wt. 29 lbs. per 100.

Each, 3c; per 100, \$2.35

Root's, $1\frac{1}{2} \times 17\frac{1}{2}$ inches, plain. Wt. 15 lbs. per 100.

Each, 3c; per 100, \$2.50

Danzenbaker, reversible. Wt. 24 lbs. per 100.

Each, 4c; per 100, \$3.00

Bottoms only — $1\frac{1}{8}$ in. wide, slotted. Wt. 11 lbs. per 100.

Each, 2c; per 100, \$1.00



Section Honey Boxes

Our No. 1 Sections are made of the choicest white basswood lumber, and are all perfect in finish and free from defects. They are not all snow-white, but vary from that to a light cream color. Choice honey shows off to best advantage in a section not too white, as it is the honey rather than the wood that the consumer looks at. Wt. 6 $\frac{1}{4}$ lbs. per 100. **Root's No. 1, best white.** per 100, 80c; per 500, \$3.60; per 1000, \$6.90

Portland Seed Co.'s No. 1. per 100, 80c; per 500, \$3.40; per 1000, \$6.50

Our No. 2 Sections, selected from our best grade, sell at a price considerably less than our No. 1, and are correspondingly lower in quality. Most of them are equal to No. 1, except in color; some have dark spots, sawmarks, or other blemishes which exclude them from No. 1 grade. Wt. 6 $\frac{1}{4}$ lbs. per 100. **Root's No. 2, second grade.**

per 100, 75c; per 500, \$3.35; per 1000, \$6.40

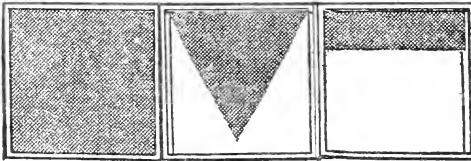
P.S.C. No. 2. Wt. 6 $\frac{1}{4}$ lbs. per 100,

per 100, 70c; per 500, \$3.15; per 1000, \$6.00

Order any of the following sizes wanted. We have 4 $\frac{1}{4}$ x 4 $\frac{1}{4}$ x 1 $\frac{1}{2}$, generally used and always sent unless otherwise ordered; 4 $\frac{1}{4}$ x 4 $\frac{1}{4}$ x 7 to the foot; 4 $\frac{1}{4}$ x 4 $\frac{1}{4}$ x 1 15-16; 4 $\frac{1}{4}$ x 4 $\frac{1}{4}$ x 1 $\frac{1}{4}$. The 4 $\frac{1}{4}$ x 4 $\frac{1}{4}$ x 1 $\frac{1}{2}$, 3 $\frac{3}{4}$ x 5 x 1 $\frac{1}{2}$, and 4 x 5 x 1 $\frac{1}{2}$ plain sections, having no beeway, are 25c per 1000 less.

For large quantities, other sizes, etc., write for special prices. If ordered by mail, allow 1c each for postage. Sample section, by mail, 1c each.

Comb Foundation



Full Sheet, Triangular and Quarter Sheet Method of Using Foundation.

There is little question but that it pays to use foundation in full sheets in the brood frames and sections, especially the latter. If you think you cannot afford so much you should at least have a strip for a starter. It will help much more than it costs you, in getting straight, even combs. You can use a starter any width from one inch up.

Our foundation is made by the "Weed process," and is a very superior article. Packed in 1, 2, 3 and 5-lb. cardboard boxes in a case.

PRICES OF COMB FOUNDATION.

When you order, be sure to tell what grade you want, and give price.

GRADE	Size of Sheets	No. per lb.	In Lots of 10 lbs.	10 lbs.
Light Standard Brood.	7 $\frac{3}{4}$ x 16 $\frac{1}{2}$	7	\$0.70	\$0.68
Extra Light Brood.	7 $\frac{3}{4}$ x 16 $\frac{1}{2}$	9	.73	.70
Light Section.	3 $\frac{3}{4}$ x 15 $\frac{1}{2}$	28	.75	.73
Extra Light Section.	3 $\frac{3}{4}$ x 15 $\frac{1}{2}$	30	.80	.76

~~Write for lowest market prices on larger orders.~~

Different Styles of Sections.



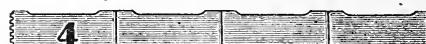
Style 1 Beeway, commonly called closed-top.



Style 2 Beeway, open top and bottom. This style is sent when no other is specified.



Style 3 Beeway, open three sides.



Style 4 Beeway, open on all four sides.



Style 5 Plain, no beeways. Used with fences.



Style 5M, 4x5x1 1/2 plain, no beeways.

Separators

One separator should always be placed between each section holder so that the bees will build the honey comb even in each section (see illustration of supers, page 138).

Slotted Wood Separators, 4 $\frac{1}{4}$ x 18, Roots, Eastern.

Wt. 8 lbs. per 100. **Per 10, 15c; per 100, \$1.10**

Slotted Wood P. S. Co.'s

Wt. 8 lbs. per 100. **Per 10, 15c; per 100, \$1.00**

Western (Veneer). 8 lbs. per C; per 100, 75c

Plain Separators, Wt. 6 $\frac{1}{4}$ lbs. per 100.

Per 10, 15c; per 100, \$1.00

Fence Separators, P. or L., Wt. 13 lbs. per 100.

Per 10, 30c; per 100, \$2.25

Fence Separators, Danz., M. Wt. 16 lbs. per 100.

Per 10, 30c; per 100, \$2.30

Honey Shipping Cases

These have a glass front, and corrugated, non-dripping packing, which protects against breakage, and are designed for marketing honey. If you expect to get the best market price, you must put your honey up in nice cases.

PRICE LIST OF SHIPPING CASES

Non-Drip—	Nailed	Flat
12-lb.	Each	10
12-lb.	\$0.20	\$1.70
24-lb., Western .....	.25	2.10
24-lb., Eastern .....	.30	2.50
24-lb., for 3 $\frac{3}{4}$ x 5 Sections .....	.30	2.35
32-lb., for 1 $\frac{1}{2}$ -inch Sections .....	.30	2.50
24-lb., for Danzenbaker Sections ..	.30	2.35

\$14.50

BEGINNERS' OUTFIT

\$14.50

To the inexperienced we recommend the following complete equipment, including the Bees, and all that is necessary to properly care for them.

One copy A B C and X Y Z of Bee Culture, new edition.

One Fig. 1-8 P. S. Co.'s Dovetailed Western Cedar Hive.

One Colony of Italian Bees in Dovetailed Hive.

One Clark Cold Blast Smoker.

One Parker Foundation Fastener.

One Porter Bee Escape Mounted.

One Pair Long Cotton Gloves.

One Bee Veil No. 2.

All Complete, F. O. B. Portland, \$14.50

FREE We include with this outfit one year's subscription to "GLEANINGS IN BEE CULTURE." The Best Bee Magazine published.

BEES MUST GO BY EXPRESS—A colony weighs about 40 pounds.

THE SUPPLIES CAN GO BY FREIGHT and weigh, packed for shipment, 40 pounds.

Hive Fixtures and Supplies—Continued

Honey Extractors

THE NEW ROOT AUTOMATIC EXTRACTOR

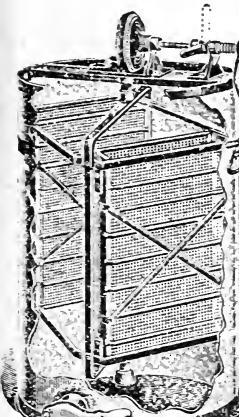
No. 25-B. Fitted with a brake that reverses the frames instantly without jar or injury and without stopping. This is an exclusive feature of the Root Automatic. We furnish the 4 frame size. Has ball bearing and slip gear device. Weight 210 pounds.

Price, \$39.50

No. 5-B. NOVICE.

Two frame for any size frame not over 9 1/2 by 18 1/2 inches; weight, 45 pounds.

Price, \$14.50



Reversible Extractor

COWAN No. 15. Reversible extractor. This is a well known extractor, is in great demand and will be ready for delivery in season. Weight 85 lbs. Write for prices.

Smokers

(See cut)

Every owner of a hive of bees should have a smoker. A few blasts of smoke will quiet the bees so that they can be handled with safety. (See cut of the leading kinds.)

Clark's Cold Blast. Probably the most popular smoker in use today. Weight 1 1/4 lbs.

Price, 70c

Improved Corneil

Makes a good strong blast. The most satisfactory and serviceable smokers.

Standard size, 3 1/4-inch, weight 2 lbs. \$1.00

Standard Jumbo, 4-inch, weight 2 lbs. \$1.50

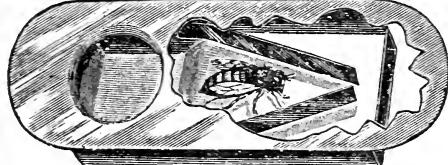
Standard Copper, 3 1/4-inch, weight 2 lbs. \$1.75

Junior, 2 1/2-inch, weight 1 1/2 lbs. 80c

Danz, Victor. Combined hot and cold blast.

Weight 1 1/4 lbs.

Price, \$1.10



Porter Bee Escape

Great Labor-saver. Weight 2 ozs.

Price, 20c, postpaid

Mounted. Weight 2 1/4 lbs. Each, 40c

Bee Entrance Guards

Root's or Tinker's. These are to admit workers, but exclude drones. Weight 1/4 lb. Price, 15c

Improved Wire Front. Price, 20c; by mail, 25c

Alley's Drone and Queen Trap
A non-swarming device. Weight 1 lb.

Each, 65c

Improved Wire Front. Weight 1 1/4 lbs. Each, 65c

Roots Hive Tool

Nickelized Steel. Each, 45c

Wax Extractors

Doolittle Solar Wax Extractor. With this the sun supplies the heat; weight 30 lbs.

Price, \$5.25

Swiss Wax Extractor. Comb is put in wire basket inside of can and set over hot water. Simple and good.

Price, \$4.00; with steam generator, \$5.00

Porter Honey House Escape

No extracting room is complete without one or more of them.

Each, 25c; postpaid

Foundation Fasteners

PARKER'S A satisfactory and serviceable tool. Weight 1 lb.

Price, 40c

DAISY FOUNDATION FASTENER. Will put starters in better and faster than any machine before introduced. Weight, 5 1/2 lbs.

Price, without lamp, \$1.15; with lamp, \$1.40

VAN DEUSEN WAX TUBE FASTENER.

Price, 20c; by mail, 25c

ROOTS, complete with lamp, 60c; without lamp, 20c.

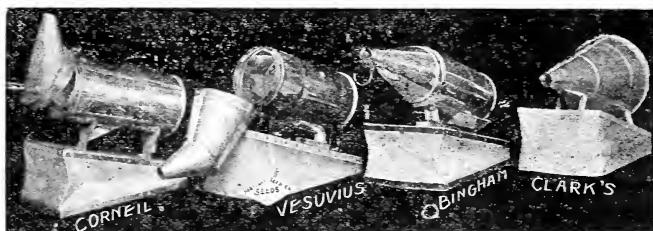
Wire Imbedders

The Easterday. Weight 4 ozs.

Price, 20c; by mail, 25c

Spur Wire Imbedder. Teeth set so as to straddle the wire while imbedding it. Weight, 4 ozs.

Price, 20c; by mail, 25c



Bingham Smokers

Strong, well made. The "Conqueror" and "Doctor" not excelled for use in large apiaries.

Bingham Conqueror. Weight 1 lb. 95c

Bingham Little Wonder. Weight 1 lb. 60c

Bingham Doctor. Weight 1 1/2 lbs. \$1.15

Bingham Large. Weight 1 lb. 75c

Bingham Engine. Weight 1 1/2 lbs. \$1.40

Feeders

Alexander. Latest out. Used under rear end brood chamber. Weight 1 1/4 lbs. Price, 30c

Simplicity. Weight 6 ozs. Each, 10c

Miller's. Sets on hive like a super; holds about 25 lbs. of syrup. Weight 5 lbs. K. D.

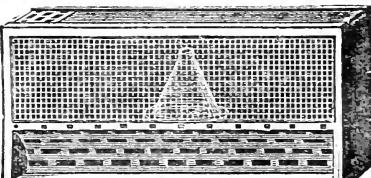
Nailed up complete, 40c; in flat, 35c

Boardman's. Weight 1/2 lb.

Price, 25c; without jar, 20c

Division Board Feeders. Weight 1 1/4 lbs.

Each, nailed, 30c



Alley's Combined Drone and Queen Trap

NEW A. B. C. OF BEE CULTURE FOR 1917, \$2.50



Hive Fixtures and Supplies—Continued



Bee Brushes

Coggshall's. (See cut). Price, 20c; by mail, 25c
 Dixie. (See cut). Price, 20c; by mail, 25c
 German. Price, 30c; by mail, 35c

Gloves, Rubber

Ladies. Sizes 7, 8, 9. Price, \$1.25; by mail, \$1.35
 Men's. Sizes 10, 11, 12. Price, \$1.50; by mail, \$1.60

Men's Half Long. Sizes 13, 14, 15.
 Price, \$1.75; by mail, \$1.85

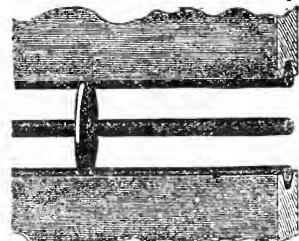
COTTON—Long Sleeves. Price, 50c; by mail, 55c
 CANVAS—Long Sleeve, Oiled.

65c pr.; postpaid, 75c

Note.—To insure getting proper size, mark outline of hand on sheet of paper.

Honey Boards

Used to confine the queen to the brood chamber. Nos. 1 and 11 are unbound zinc. Nos. 12 and 13 are wood-bound with a bee space one side.



NEW STYLE WOOD AND WIRE HONEY BOARD

No sharp edges for the bees to pass over.

No. 11. 8-frame, unbound, 12x19½ inches
 One, 35c; ten, \$3.40
 No. 1. 10-frame, unbound, 14x19½ inches
 One, 40c; ten, \$3.80
 No. 13. 8-frame, wood-bound, 13½x20 inches
 One, 45c; ten, \$4.20
 No. 12. 10-frame, wood-bound, 16x20 inches
 One, 45c; ten, \$4.35
 No. 8. 8-frame, wood and wire, 13½x20 inches
 One, 45c; ten, \$4.40
 No. 7. 10-frame, wood and wire, 16x20 inches
 One, 50c; ten, \$4.80

Cages for Queens

Benton. For mailing and introducing.
 Each, no candy, 5c; by mail, 7c

Manum's Swarming Device

A most complete swarming device. The swarmer is light, conveniently carried, and will reach a swarm 20 feet from the ground. Complete, \$1.75
 wire basket, with ball, no pole, \$1.35. Weight 3½ lbs.

Miscellaneous

QUEEN CELL PROTECTOR. Doolittle.
 Each, 3c; by mail, 5c

WEST'S CELL PROTECTOR.
 Each, 8c; 10 for 65c; by mail, 75c

WEST'S SPIRAL CAGE.
 Each, 10c; 10 for 80c; by mail, 90c

HIVE CLAMPS. per pair, 5c; 10 pairs, 40c
 without screws. 10 pairs, 35c. Add 3c per pair postage.

HUBBARD SECTION PRESS. Price, \$3.25

ROOT'S SECTION PRESS. Price, \$2.10

HIVE TENT, weight 6 lbs. Price, \$3.00

Honey Knives

Novice. Price, 85c; by mail, 95c
 Quinby. Price, \$1.00; by mail, \$1.10
 Bingham. Price, 80c; by mail, 90c

Perforated Zinc

Used for making honey boards, also entrance guards, queen and drone traps, etc.

Perforated sheets, each, 32x96, Weight 6 lbs., \$3.50. Less than a sheet, per square foot, Weight 4½ ozs., 20c.

Root's Queen Rearing Outfit

A complete set of tools and materials, including book of instructions, enabling any one with very little experience to rear his own queens at small expense.

Price, \$4.75

Queen Bees and Colonies

We are in a position to furnish full-blooded Italian queens, and full colonies. It takes about five days to get these in from the apiary, so do not expect queens by return mail.

Untested Queen. April, \$1.75; May, June, July, August, September, \$1.25.

Tested Queen. April, May, June, July, August, September, \$2.00

Selected Tested Queen. April, \$3.50; May, June, July, \$2.50; August or September, \$3.00

Full Colony. In an 8-frame hive. Price, \$8.00

Bee Veils

Globe. Has five bars that will keep veil away from head. Weight, 6 oz. Price, \$1.00

Hat Veil. These veils have a rubber band round the top, so as to fit the hat snugly.

No. 1 Veil, made entirely of silk tulle.

90c, postpaid

No. 2 Veil, cotton tulle, silk face.

65c, postpaid

No. 3 Veil, cotton tulle throughout.

50c, postpaid

Alexander. 80c, postpaid

No. 30 Tinned Wire

¾-ounce spools. Each, 5c; dozen, 45c

½-pound spools. Each, 15c; dozen, \$1.50

½-pound spools. Each, 25c; dozen, \$2.25

1-pound spools. Each, 35c; dozen, \$3.45

5-pound coils. Each, \$1.35

Bee Supplies

TIN RABBETS

Price: 12-Inch..... Per 10, 15c; per 100, \$1.40
 14-Inch..... Per 10, 15c; per 100, \$1.40
 15-Inch..... Per 10, 20c; per 100, \$1.55

T-TINS

Price: 12-Inch..... Per 10, 15c; per 100, \$1.40
 13 ¼-Inch..... Per 10, 15c; per 100, \$1.40
 14-Inch..... Per 10, 15c; per 100, \$1.40

16-Inch..... Per 10, 20c; per 100, \$1.55
 18 to 20-Inch Per 10, 25c; per 100, \$2.00

FLAT TINS

Price: 12-Inch..... Per 10, 10c; per 100, 60c
 13 ½-Inch..... Per 10, 10c; per 100, 60c
 14-Inch..... Per 10, 10c; per 100, 60c

15-Inch..... Per 10, 10c; per 100, 75c

DAIRY SUPPLIES

KOW
KURE

The "World's
Greatest
Cow Medicine"

"More
MONEY
from your
COWS"

A Handbook for Cow Owners, describing the diseases that affect a cow's productivity and telling how to prevent and cure them in a single cow or a whole herd.

FREE on Request

KOW KURE is different from anything ever discovered for cow troubles. It is the only cow medicine that is strictly for cows only. It is not a stock food, but a specific remedy especially for cow diseases, such as Barrenness, Scours, Milk Fever, Caked Udder, Bloating, Red Water, Swelling of the Bag, etc. It prevents abortion and removes retained after-birth. It tones up the system, renews vitality, restores appetite to cows that are "off feed," and keeps them healthy. Makes poor cows good, good cows better, and makes more money for cow owners. It increases the milk flow, and enables the cows to produce strong, vigorous calves. It's the dairyman's gold mine, and a sure profit-payer.

Price, 50c, cans wt., 1 $\frac{1}{4}$ lbs., and \$1.00 cans, wt., 3 $\frac{1}{4}$ lb.

AMERICAN DAIRY ASSOCIATION REMEDIES

BAG BALM.—A soothing, penetrating ointment for all afflictions of the bag.

50c packages, wt., $\frac{1}{2}$ lb.

GRANGE GARGET CURE.—An unsurpassed and positive cure.

50c cans, wt., 2 lbs.

HORSE COMFORT.—For wire cuts and all flesh wounds.

25c bottles, wt. 1 lb., 50c bottles, wt. 2 lbs.

AMERICAN HORSE TONIC.—A general improver for horses.

25c boxes, wt., 1 lb.; 50c boxes, wt., 2 lbs.

Increases Milk
Production 20%

So-Bos-So

Protects Stock From
the Torture of Flies

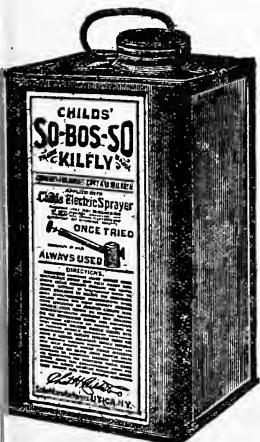
YOUR cows will give more milk—your horse do more work on less feed if protected by So-Bos-So at a cost of less than $\frac{1}{2}$ cent a head per day.

Horses hitched or harnessed will stand quietly or work in comfort if protected by So-Bos-So, and many run-aways will be avoided. So-Bos-So is a boon to blacksmiths.

So-Bos-So is easily and quickly applied with a hand sprayer, cloth or sponge and is the only really efficient "fly bouncer" that we have ever seen.

Be sure to look for the trade-mark as there are many preparations offered that will prove disappointing.

Price So-Bos-So is sold in one gallon sealed tins only, weight 10 lbs., at \$1.25.



DAIRY SUPPLIES

\$700,000,000 is the value placed on Dairy Products in the U. S. for one year, and it is a matter of record that more money is made from dairy cows than from any other source of income on the farm.

CREAM SEPARATORS have made this possible by the great saving in time and labor, and the greater amount of butter fat secured, much of which is lost under the old method of hand skimming.

BIG PROFITS are made from stock on the farm where a cream separator is used—the cream sold and the warm, wholesome skim milk fed to calves and pigs. Under the old system the expense of handling and hauling the milk used up the profits and left nothing for feeding.

KEEP COWS ON THE FARM—They are your most dependable and profitable source of income. Stock increases profitably. The manure is needed for the restoration of your cultivated land, and if you own a *Separator* the dairy products will bring a steady income that means a good living and ready money for yourself and family.



WHEN YOU BUY A SEPARATOR you want the one that skims the closest, summer or winter; that will handle milk from "stripper" cows; that will produce cream of any desired density.

A durable machine that will give everlasting satisfaction and service, at the minimum cost of up-keep; a separator that is mechanically perfect, having the fewest parts, the greatest capacity for its size, the quickest, cleanest and easiest running,

The National
IS THE ONLY SEPARATOR

that combines all the above and for 22 years has stood the test of time, maintaining its position against all competitors—and many of those first National Separators are in daily use after 20 years of service.

CLEANED IN THREE MINUTES

The superiority of the "National" Cream Separator is due to the marvelous one-piece skimming device, the famous *Vortespoon*. Just one cylinder-shaped piece of the finest German nickel steel, extremely light in weight and large enough for any woman to put her arm through. *A child can clean it in three minutes without risk of breaking or harming it. Just wipe off with a wet rag inside and out, and rinse in hot water and the job is done.*

Capacity Governs Price of Separators

The *National* is not overrated, as is often the case with other separators (price being governed by capacity), but will make perfect separation of the amount of milk claimed under ordinary conditions and have ample reserve capacity. You can absolutely depend upon the *National* to handle perfectly the amounts listed for the various sizes. No separator that has to be crowded to handle its advertised capacity will skim perfectly.

PRICES OF NATIONAL SEPARATORS are the lowest of any high-grade separator and a better separator cannot be bought at any price.

The Exclusive Original Features of the National Separator are the inventions and property of the National Separator Company and cannot be duplicated or used by any other separator.



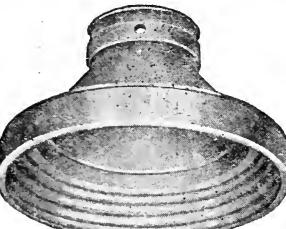
NATIONAL SEPARATOR—Continued

CENTRIFUGAL FORCE is the big factor in separating cream from milk, but centrifugal force alone is not sufficient and the aid of the wonderful *Vortespoon* is needed to give the proper amount of skimming surface—this combination gives ideal results. *It should be specially noted that no mechanical contrivances* are required between the *Vortespoon* and the feed tube, the globules of butter fat are, therefore, allowed to remain in a whole condition, the highest grade from which the finest butter is made, commanding the best prices. The *National* bowl, owing to the construction of the feed tube, *flushes clean after using*, not a particle of cream is lost, and is the simplest and easiest bowl to handle and clean.

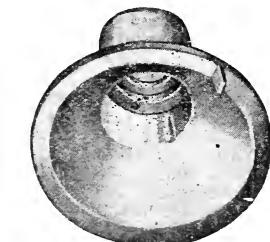
The Marvelous Vortespoon

ONE SINGLE, SOLID PIECE OF GERMAN NICKEL STEEL DOES ALL THE SKIMMING

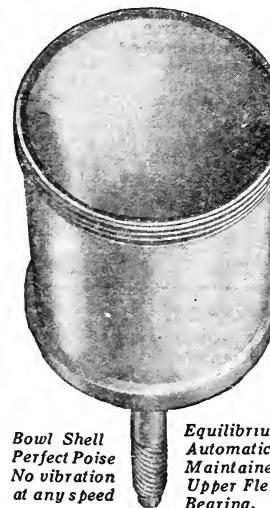
This wonderful invention belongs exclusively to the "*National*," and is the most efficient skimming device ever designed. It is made of the finest material, has no parts to wear out, is not easily damaged and can be cleaned in less than 3 minutes. The simple bowl parts here illustrated tell their own story of the great superiority of the *National*.



Bowl Top



Inner Top Cone



Bowl Shell
Perfect Poise
No vibration
at any speed

Equilibrium
Automatically
Maintained by
Upper Flexible
Bearing.

BOWL BEARINGS.—The upper bearing is a flexible, phosphor bronze bearing, encircled by a steel spring enabling the bowl to maintain its equilibrium without the slightest vibration to the machine. The lower bearing rests on a single ball-bearing, cushioned to prevent breaking of ball.

DRIVING MECHANISM.—This is the simplest manufactured, the main driving wheel and clutch pinion are of the finest steel the worm wheel phosphor bronze, all parts machined to the thousandth part of an inch, properly proportioned and friction reduced to the minimum, special side ball bearings of exclusive design, help to make the *National* the easiest running separator. When you drop the handle the gears stop and only the worm-wheel running on the bowl spindle remains in action, a gear shield protects against clothing, or any objects being caught up by the gears.

THE OILING SYSTEM insures an ample supply of fresh oil always in view and control of the operator, a simple effective system that keeps the gears and bearings clean and prevents wearing.

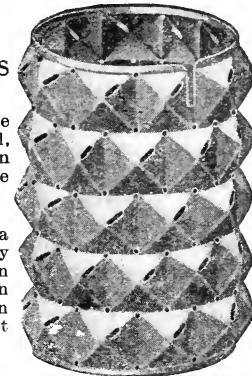
POWER ATTACHMENTS can be furnished for all sizes of *National* Separators. They are easily and quickly adjusted to fit any engine or shaft.

The National Catalog

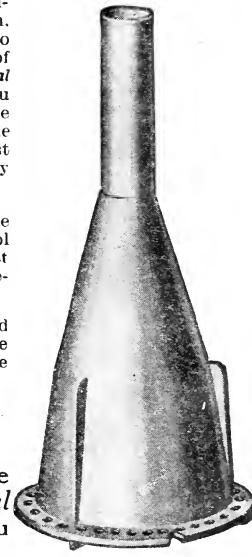
40 pages illustrated, gives complete and interesting facts about *National* Separators. We will gladly mail you a copy on request.

PRICES

National Separators are made in the following sizes, and all prices are F. O. B. Portland. We have all sizes and can fill orders promptly on receipt.



Vortespoon One-Piece Skimming Device



Feed Tube

	Hourly Capacity	Cows	Shipping Weight	Price
National No. 22	325 lbs.	3 to 8	166 lbs.	\$60.00
National No. 24	500 "	6 to 14	167 "	70.00
National No. 26	600 "	12 to 30	170 "	80.00

NATIONAL SEPARATORS are fully guaranteed to be as represented and as perfect as human skill can make them. All parts showing defective material or workmanship will be cheerfully replaced. Read the Guarantee in the special NATIONAL Catalog.



Dairy Supplies, Stock Foods, Etc. Babcock Tester---Model 8

For Testing Milk and Its Products

The most accurate and best built tester. Case is one solid piece, weighing about 4 pounds. Crank and shaft a single solid piece of steel. Worm spindle and gear solid steel and iron mesh full width.

Buckets solid brass. Gear worm runs in oil. Model 8 Babcock Testers are guaranteed perfect in workmanship and material, all are equipped with full set of glassware, bottle of acid and brush. Shipping weight, 15 lbs. Accurate skim milk bottles at 60c each; \$6.00 dozen; postage 10c for single bottle.

Prices Babcock Testers.

No. 4—2 bottles, milk only	\$4.25	No. 6—4 bottles, milk only	\$5.25
No. 5—2 bottles, milk and cream	4.75	No. 7—4 bottles, milk and cream	5.75

"TIPS FOR BUTTERMAKERS" is a splendid little book which we send FREE ON REQUEST.

Dairy Thermometers

Floating Glass Dairy Thermometers, 8 inches, flat scale, easy to read, floats upright, range 150 degrees. **Each, 25c**

LACTOMETER

(Milk Per Cent scale, New York Board of Health Pattern.) 0 to 20; 2 degrees graduation. **Each, 50c**

LACTODENSIMETER (Quevenne)

Specific gravity scale, 1015 to 1040, 1 degree graduations. **Each, 50c**

LACTODENSIMETER (Quevenne) with thermometer

Specific gravity scale, 1015 to 1040, 1 degree graduations; with thermometer in top of stem, length, 13 inches. **Each, \$2.00**

NOTE—All glassware carefully packed for mailing,

GLASS JARS

Plain glass jars with foot and pour-out for use with sprayometers and hygrometers in testing. 10x2 inches **Each, 45c**
12x2 inches **Each, 50c**

GRADUATED CREAM GAUGE

Graduated 0 to 30 per cent. 9 1/2 x 1 1/2 inches. **75c**

BRUSHES

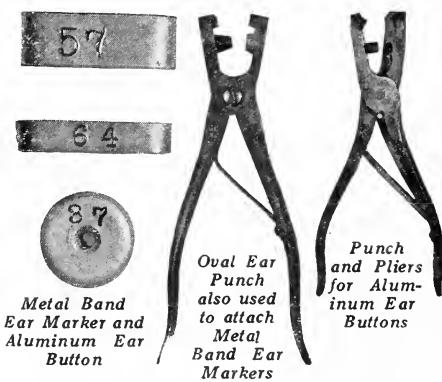
National Bowl Brush	Each, 25c
National Spout Brush	Each, 20c
Sharpies Flexible Tube Brush	Each, 10c
Sharpies Spout Brush	Each, 20c
Sharpies Bowl Brush	Each, 50c

but we will not be responsible for breakage in transit.

Markers For Cattle, sheep and Hogs

Metal Ear Labels and Ideal Ear Buttons are satisfactory and easily applied marks of identification that are indispensable to breeders and stockmen.

Your name and address on one side, numbers on the other.



Not more than ten large letters can be used on the hog and sheep size; 15 large letters on cattle size, or 22 small ones.

PRICES:	Two sizes: Sheep and Hog	Cattle
100 with name and number	\$1.65	\$2.15
50 with name and number	1.15	1.40
25 with name and number .....	.75	.85
100 with name only, or number only	1.25	1.65
50 with name only, or number only .....	.85	1.15
25 with name only, or number only .....	.60	.75

Wt. for mailing, Cattle size, 2 1/2 lbs. per 100; Sheep size, 1 lb. per 100.

oval ear punches, cattle size: weight, 1 1/2 lb. each, \$1.65; **sheep and hog:** size, \$1.25. Postage, 10c each.

Ideal Ear Buttons

Pure Aluminum Hardened

Medium size, suits all animals, clinches tight, cannot come out; double strength. Name and address on top side; number on bottom, or number and name can both appear on one side if not more than 18 letters and figures; if more than 18, both sides can be used to the limit of 30 letters and figures. Easily attached with special punch and pliers.

PRICES	
25, Wt., 3 oz....	\$1.25
50, Wt., 1/4 lb....	1.90
100, Wt., 3/4 lb....	3.50
Punch and Pliers, Wt., 1 lb.....	\$1.25

"MEDICO" Tonic and Worm Destroyer

80% of all stock losses are due to worms—only healthy animals respond to feeding—
wormy stock will not thrive—your money is fattening worms.

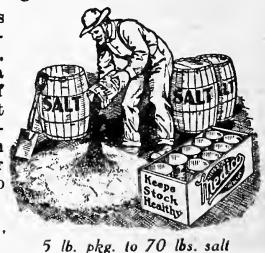
MEDICO DESTROYS the dreaded intestine and stomach worms and expels

them from the system, tones up the digestive tract and keeps them away. Horses, cattle, sheep, hogs, all must have salt, a package of Medico mixed with 70 lbs. of salt makes the most perfect medicated salt tonic and worm destroyer possible to obtain, and at a fraction of the cost of such preparations. Keep this salt before your stock, they will use the proper amount to keep them healthy.



Be sure this Trade Mark is on the package.

PRICE, 5 lb. pkg. (mailing weight 6 lbs.). **\$1.25.**





BLATCHFORDS CALF MEAL

A perfect Milk Substitute at $\frac{1}{8}$ the cost—will push Calves and Colts ahead quicker than any other food.

100 lbs. Makes 100 Gals. of Complete Milk Equal.



Blatchfords Calf Meal is a thoroughly steam cooked food for calves, to take the place of cows milk, contains all the elements of whole milk, yet costs less than skim milk. Calves and colts are healthier, harder and grow faster when fed on Blatchfords calf meal. Ask for the Blatchfords booklet and learn how others made big profits raising calves on Blatchfords meal.

PRICES: 25 lbs., \$1.30; 50 lbs., \$2.20; 100 lbs., \$4.25

BLATCHFORDS PIG MEAL

The Perfect Milk Substitute for Young Pigs

At weaning time Blatchfords pig meal will safely carry the young pigs from the sow to the pasture and coarse feed, and there will be no runts, a pound of pig meal costing less than 5c makes a gallon of perfect milk equal. Keeps the pigs healthy and growing strong. Booklet and full information on Request. Prices, 25 lbs., \$1.30; 50 lbs., \$2.25; 100 lbs., \$4.25.

BLATCHFORDS MILK MASH

Baby chicks started on this imitation milk will grow and thrive rapidly and be free from bowel trouble. Contains no drugs. Prices, 25 lbs., \$1.30; 50 lbs., \$2.25; 100 lbs., \$4.25.

BLATCHFORDS LAMB FOOD

Lambs demand a careful weaning, needing a milk diet for the change to ordinary food. Blatchfords Lamb Food is an ideal ration and imitation Ewes milk. Prices, 25 lbs., \$1.30; 50 lbs., \$2.25; 100 lbs., \$4.25.

Dried Beet Pulp

To be fed dry or moistened. Dry shredded sugar beets improved in feeding value by removal of the sugar. Fed half and half with other grains will greatly increase the milk flow. Highly recommended for dairy and show stock; a safe, economical food.

Price, per lb., 5c; 50 lbs., 90c; 100 lbs., \$1.60; ton, \$30.00.

International Stock and Poultry Foods, Remedies, Etc.

Every package of "INTERNATIONAL" is guaranteed to fulfill every claim made for it, or your money back for the asking. We sell "INTERNATIONAL" on its merits. You are the judge. Full directions on each package.

For Poultry

INTERNATIONAL POULTRY FOOD.

Pkgs., 25c, wt., 2 lbs.; 50c, wt., 4 lbs.; and \$1.00, wt., 7 lbs.

INTERNATIONAL LOUSE KILLER.

Wt., 2 lbs.; Pkg., 25c

INTERNATIONAL LICE PAINT.

35c cans, wt., 3 lbs.; 60c cans, wt., 5 lbs.

INTERNATIONAL SCALY LEG OINTMENT.

Box, 25c, postpaid

INTERNATIONAL CRESUL.

Wt., pk'd., 1 lb.; $\frac{1}{2}$ -pint can, 25c

INTERNATIONAL ASEPTIN.

Per box, 25c, postpaid

INTERNATIONAL RHEUMATISM OIL.

Per bottle, 25c

INTERNATIONAL SUDAL.

Box, 25c, postp'd

INTERNATIONAL CHOLERA CURE.

Per bottle, 50c

INTERNATIONAL WORM PILLS.

50c, postp'd

INTERNATIONAL BOWEL TROUBLE REMEDY.

Per box, 50c, postpaid

For Stock

INTERNATIONAL STOCK FOOD.

Pkgs., 25c, wt., 2 lbs.; 50c, wt., 4 lbs.; 7-lb. pkg., \$1.00.

INTERNATIONAL HEAVE CURE.

Wt., $1\frac{1}{4}$ lbs.; Pkg., 50c

INTERNATIONAL WORM POWDER.

Pkg., 50c, weight, $1\frac{1}{4}$ lbs.

INTERNATIONAL PHENO-CHLORO.

25c, wt., 1 lb.; 50c, wt., 2 lbs.; \$1.00 cans, wt., 3 lbs.

INTERNATIONAL HARNESS DRESSING.

Price, 25c, weight, 2 lbs.; large can, 50c, weight, 3 lbs.; 5 lbs., \$1.00; 10 lbs., \$2.00.

INTERNATIONAL HONEY TAR FOOT REMEDY.

50c can, wt., 2 lbs.; \$1.00 cans, wt., 3 lbs.

INTERNATIONAL COLIC CURE.

50c, wt., 2 lbs.; \$1.00 bottles, wt., 3 lbs.

INTERNATIONAL SILVER PINE OIL.

25c, 1 lb.; 50c, wt., 2 lbs.; \$1.00 bottles, wt., 3 lbs.

INTERNATIONAL DISTEMPER REMEDY.

Pkg., 50c, wt., $1\frac{1}{4}$ lbs.

INTERNATIONAL HOOF OINTMENT.

Wt., $1\frac{1}{2}$ lbs., \$1.00

DAN PATCH STABLE LINIMENT.

\$2.00

INTERNATIONAL DIP.

1 gal. can, \$1.50

INTERNATIONAL COMPOUND ABSORBENT.

\$2.00

 National Separators run easy, skim to a trace and can be cleaned in three minutes. See pages 144 and 145.



POULTRY SUPPLIES

Foods and Remedies

WE ARE PIONEERS in the **POULTRY SUPPLY BUSINESS** in the Northwest, and our Famous **DIAMOND** Poultry Foods and Supplies are the standards wherever known.

This important part of our business is in the hands of trustworthy practical poultrymen—men of experience, who are competent to confer with and advise you on any subject pertaining to the raising of Poultry—a service that is free to you.

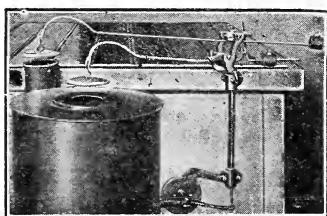
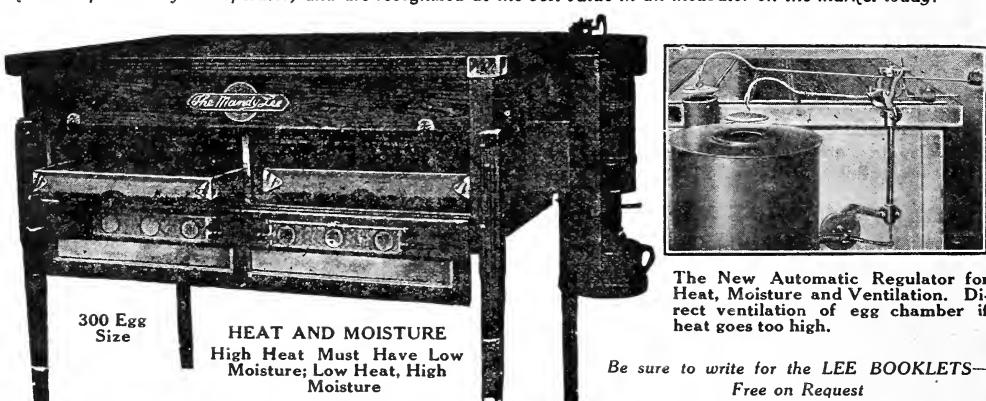
In the following pages we offer everything necessary for the successful production of Poultry and you can depend upon the supplies and appliances listed as being the standards in their line.

Poultry and Eggs are always in big demand, and prices are good. Let us help you to get in line for your share of the profits.

"MANDY LEE" INCUBATORS

MANDY LEE INCUBATORS are guaranteed by the Manufacturer to hatch a larger percentage of big, healthy chicks that live than can be obtained from any other incubator, or even the mother hen—a strong guarantee, but one that is fully justified, for it is a well-known fact that "Mandy Lee" chicks are big, sturdy, healthy chicks of strong vitality that feather out quickly and grow rapidly.

"Mandy Lee" Incubators heat quickly, run evenly, regulate automatically, and do not depend upon the skill or experience of the operator, and are recognized as the best value in an incubator on the market today.



The New Automatic Regulator for Heat, Moisture and Ventilation. Direct ventilation of egg chamber if heat goes too high.

Be sure to write for the **LEE BOOKLETS**—Free on Request

FOR HATCHING DUCKS

The "Mandy Lee" will give you better results than other incubators—because of the **perfect control and automatic regulation**.



Mandy Lee Hygrometer

Accurately registers the moisture, is easily read, makes possible a **sure hatch** of vigorous chicks. Free with every incubator.

Sold alone, \$2.50, postpaid.

EXCLUSIVE FEATURES

EGG LEVEL VENTILATION

NURSERY TRAY.—Has a cloth bottom that can be turned up until the eighteenth day, thus cutting off the [air] space beneath the [eggs].

HEAT BY RADIATION.—No smoke, gas or dry hot air from the lamp ever enter the egg chamber, the heat being equalized and applied by radiation from the heating tubes.

LEE HYGROMETER.—With every "Mandy Lee" the famous Lee Hygrometer is furnished for registering the moisture.

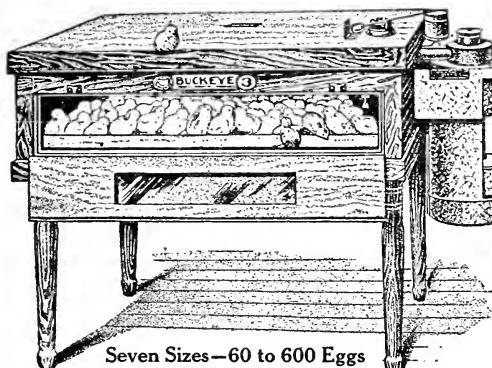
Special adjustment of egg tray, thermometer and nursery, making the "Mandy Lee" Incubator adaptable to any size egg, from Bantam to Ostrich.

The "MANDY LEE" is built of air-seasoned California redwood, is of handsome cabinet construction, with cherry finish, has heavy brass and bronzed metal trimmings, double glass doors and the double walls are insulated with from $1\frac{1}{2}$ to 3 inches of asbestos or mineral wool. No other incubator is so well built.

Prices and Sizes of "Mandy Lee" Incubators

All complete with Lamp, Hygrometer, Thermometer, Moisture Pan, Combination Egg Tray and Egg Tester. Prices quoted are packed for shipment F. O. B. Portland.

	Wt. Crated	Price	Wt. Crated	Price	
120-Egg.....	133 Lbs.	\$21.00	150-Egg.....	160 Lbs.	\$24.00
140-Egg.....	150 Lbs.	23.00	200-Egg.....	200 Lbs.	27.00



Seven Sizes—60 to 600 Eggs

BUCKEYE

The World's Best Incubator

BUILT up to a standard—
not down to a price.

You'll find it in the plants of the
biggest breeders in the country—

and you'll find it in the piano box coops of beginners just starting.

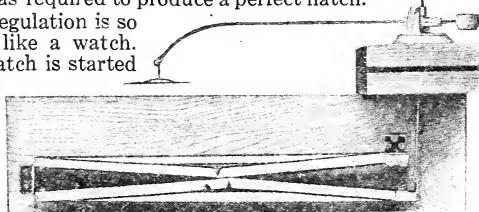
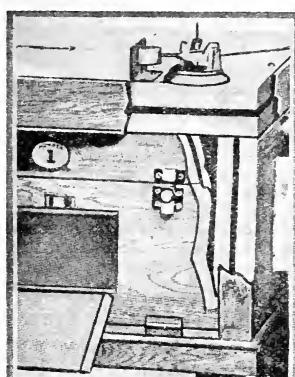
THE unprecedented success which has followed the Buckeye for 25 years is primarily due to the invention of the Buckeye hot-water system, without which that perfect balance between the temperature, moisture and ventilation which is so necessary to successful incubation, would be a physical impossibility. Heating the egg chamber without cooking all the moisture out of the air is responsible not only for the abundant supply of natural moisture but at the same time the soft, radiated heat from the hot water tank provides an absolutely uniform temperature and permits the perfect ventilation of the egg chamber.

 We guarantee the temperature of every Buckeye we build to be uniform within a fraction of a degree at all times in the egg tray.

Requires no Artificial Moisture Regardless of the conditions under which a "Buckeye" Incubator may be operated it NEVER requires ARTIFICIAL moisture. The word NEVER sounds pretty strong and yet we mean it in its full sense. A "Buckeye" NEVER requires artificial moisture. We have sent over four hundred thousand (400,000) of them to all quarters of the globe—to be operated under the same positive instructions—and have never found a single instance where applied moisture was required to produce a perfect hatch.

Regulation of Temperature THE BUCKEYE SYSTEM of regulation is so perfectly adjusted that it works like a watch. You set the regulator when the hatch is started and you never touch it until the next hatch. The solid, all-metal construction of the Buckeye thermostat is so positive and perfect in its action that a variation of more than 2 degrees is an absolute impossibility. We guarantee that.

Operated in any Temperature Regardless of Sudden Changes Cold rooms or sudden changes in the temperature have no terror for the "Buckeye". Regardless of size or price we GUARANTEE every Buckeye to work satisfactorily in any temperature down to freezing.



Simplicity of Operation No previous incubator experience is required to operate a "Buckeye". Outside of filling the lamp and turning the eggs, everything is automatic and requires no attention from the operator.

Every item that enters into the construction of a Buckeye is, without exception, the best that money can buy. The lumber, the metal, the hardware, the lamp, the thermometer—every item without exception—the best.

The labor that builds the raw material into the finished product is the best that money can employ. Boys and unskilled labor are unknown in the Buckeye factory.

A systematic inspection is made of every part of every incubator we build, and, as a consequence, we get less than one complaint from every ten thousand machines we sell. Perfect construction of a perfect design is the only thing that makes it possible for us to sell the Buckeye under such an absolute guarantee.

PRICES and SIZES—F.O.B. Portland

	Size	Wt. Price	Size	Wt. Price
No. 14.	60 egg, short legs	55 lb. \$9.50	No. 1.	110 egg, 110 lb. \$22.50
No. 15.	60 egg, tall.....	75 lb. 12.00	No. 2.	175 egg, 135 lb. 27.50
No. 16.	110 egg.....	85 lb. 16.00	No. 3.	250 egg, 200 lb. 35.00
No. 17.	200 egg.....	125 lb. 21.00	No. 4.	350 egg, 230 lb. 39.50
Buckeye Mammoth, No. 5, 600 egg, wt. 325 lb., \$65.00				

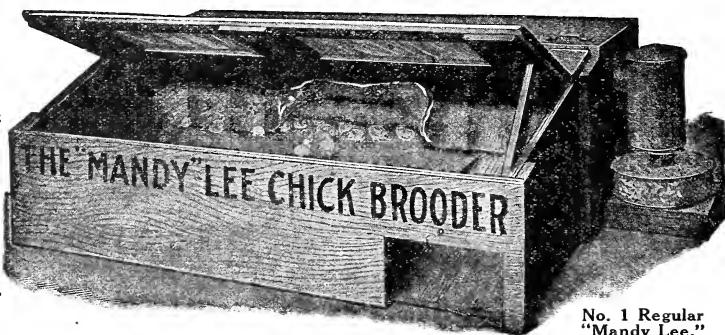


MANDY LEE BROODERS

The Only Brooders That Provide Natural Brooding Conditions
DIRECT CONTACT HEAT

"Hovers 'Em
like a Hen."

**FULL
DETAILS
IN THE
LEE
BOOKS
FREE to you**



Showing
portion of
Hover,
Lamp,
Extension-
Chimney, etc.

No. 1 Regular
"Mandy Lee."

ADVANTAGES OF THE LEE BROODER

No lamp fumes or superheated air in the hover.
Glass Front forming a comfortable exercising room for the little chicks, with similar space at back.
Opens up and cleans easily, an important feature.
All Cloth and Blankets are on wood strips, easily removable for cleaning or replacing.
Lamp Flame is always in plain sight, lamp easily removed.
A Lamp Burner that does not heat and that successfully burns medium grade oils.

No. 1, or Regular "Mandy Lee"

Outside dimensions, 3x4 feet. It is as large as any 200-chick brooder on the market, but we call it only 100-chick size—50 chicks on each side of the hover. It will hold more, but it doesn't pay to crowd. Better have 50 healthy chicks in your brooder than 100 weak, sickly ones. The cost of a few brooders is insignificant as compared to the value of the season's hatch.

PRICE, complete, including Box Germozone, Drinking Fountain and Thermometer, \$15.00
LEE 60 CHICK BROODER—Heated

Lamp, heater, hover construction, cloth and metal parts, and width exactly the same as our "regular" brooder. Length of hover 30 inches; openings in swinging door covered with 60-mesh brass-wire cloth, and, when lowered either folds directly against hover opening or rests on flanged front of runway, making a rat and cat proof exercising space for the chicks. Weight packed 70 lbs.

Price, \$6.50

LEE OUTDOOR BROODERS

OUTDOOR, HEATED and REGULATED BROODERS

Instead of the usual single floor we have a double floor 3x4 feet, the lower floor being directly on the ground where the chicks come in contact with mother earth even in most inclement weather. We have the Mandy Lee contact heat under a warm Blanket—a long, narrow hover with a curtain on both sides—just like our regular brooder—just like the old mother hen. The regulator is the same style as on the incubator. Capacity 100 to 150. Weight 115 lbs.

Price, 4-foot size, \$20.00

NEW OUTDOOR FIRELESS No. 25

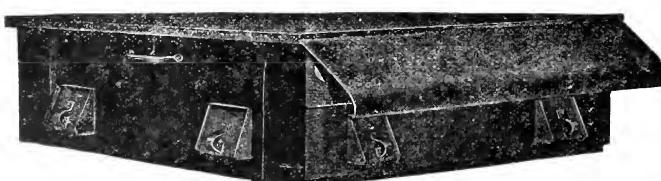
Has rain-proof top, glass front, large feeding compartment and removable board floor. A thoroughly practical and safe brooder. Size 2x4 feet, see cut.

Price, each, \$10 00



No. 25 Outdoor
Fireless Brooder

LEE FIRELESS BROODERS



"Mandy Lee" Fireless Brooders have double doors, adjustable hover, properly arranged ventilators, metal covered top and rain shield. All parts are readily accessible for cleaning and airing.

In two sizes

No. 8, for 100 chicks.....\$6.00
No. 10, for 200 chicks.....9.00



LEE'S GEMOZONE KEEPS CHICKS HEALTHY. SEE PAGE 157

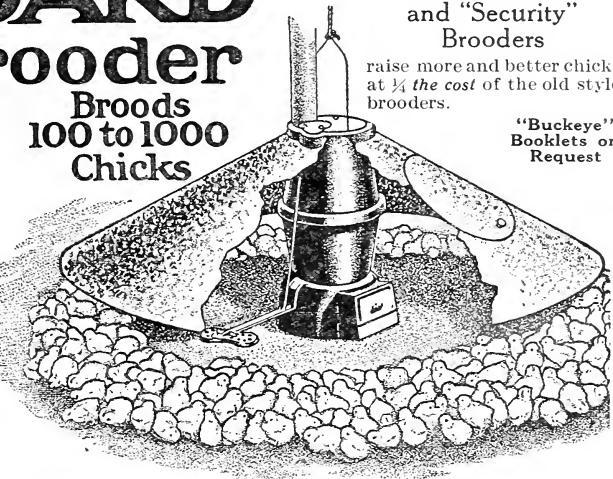
STANDARD Colony Brooder

Patented July 4, 1916

Broods
100 to 1000
Chicks

THE greatest, most practical coal-burning brooder ever made. Burns 24 hours at one coaling. Self-feeding, self-regulating, everlasting. Broods 100 to 1000 chicks at a low operating cost. Burns coal or briquettes. Used by over 10,000 big and little breeders. **Grows Three Chicks Where One Grew Before. Cuts the Cost of Equipment to Less than Half.**

It will do anything any other brooder will do—regardless of price—and do it better. It matters not whether you have ten or ten hundred chicks under a Standard Colony Brooder, the results are the same. You can remove part of the chicks or increase the number at any time.



"Buckeye"
Booklets on
Request

The New Way—

"Standard Colony"
and "Security"
Brooders

raise more and better chicks
at $\frac{1}{4}$ the cost of the old style
brooders.

AIR ALWAYS PURE AND FRESH. No dampers or valves of any kind between the smoke pipe and the fire, the draft being controlled automatically, an exclusive feature of the Standard Colony Brooder and the only coal-burning Brooder that is absolutely free from gases under the Hover.

OPERATED ANYWHERE. No room is too large or too small for a Standard Colony Brooder. Whether it is operated in the largest barn or the smallest colony house, the results will be the same.

BURNS ANY FUEL.—Hard or soft coal, charcoal, coke, briquets or gas. Hard coal is best simply because it is cleaner. All fuel should be nut size.

THE STANDARD COLONY BROODER is fire-proof, simple and requires little attention; has but one adjusting nut which you need never touch more than once in a season. Requires absolutely no more attention than filling with coal once a day, shaking down the ashes twice. These are caught in a pan and can be dumped; no shoveling.

NOTHING TO WEAR OUT—Nothing to break, being made of cast iron just like a kitchen range, and the Hover is of galvanized steel built to last a lifetime. The first cost is the only cost.

Price, f. o. b. Portland, \$19.50

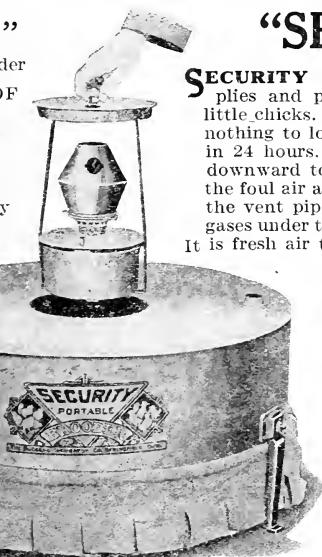
"Security"

Portable Brooder

FIRE PROOF
SAFE and
Economical

Broods
100 to 150

One size only



Will maintain 100 degrees in any temperature down to freezing.

"SECURITY" BROODERS

SECURITY PORTABLE BROODERS are all that the name implies and possess every desirable qualification for the welfare of the little chicks. There is nothing to adjust, nothing to get out of order, nothing to look after but the lamp and that requires filling but once in 24 hours. The central heater with the overhead canopy sloping downward to the outside edges radiates the heat evenly and directs the foul air and impure gases into the upper chamber and out through the vent pipes. The moment the lamp is lighted, the impure air or gases under the Hover are drawn out.

It is fresh air that makes the chicks grow. The circulation is secured without draft. Four hundred and fifty square inches of curtain filter the air through four inches of outlet and keeps the pure air coming in all the time. Every particle of heat from the high power lamp is utilized on the interior of the brooder, heating the overhead canopy and throwing a soft, radiant heat toward the floor of the Brooder.

The SECURITY LAMP is not inclosed, making it absolutely safe, there being no possible chance of overheating. The lamp cannot reach a temperature higher than that under the Hover. The chicks never crowd but hover at the curtain just as they do in the Standard Colony Brooder, the Security being built on the same principle.

The "SECURITY" is built to last. Outside shell is 28 gauge galvanized steel; inside shell, 28 gauge black iron insulated with a 1-inch thickness of mineral wool. Is light, strong and **can be operated in any place where the temperature is not below freezing point.** Price, f. o. b. Portland, \$13.50

Special Buckeye Catalogs and interesting information on request.



MANN BONE CUTTERS

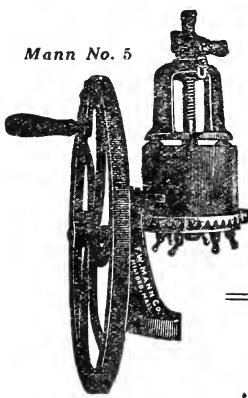
The Only Mill That Will Cut Green Bone and Not Clog.

THE Mann's Green Bone Cutter is offered to the poultry world on a warranty to produce a perfectly edible poultry food, with no waste, from any lot of green bones, with less labor and less annoyance than any other bone cutter.

We send the Mann's to any responsible poultryman with this understanding; if you are not satisfied that it meets every claim we make for it, notify us, and we will give you instructions to return the machine, and will, upon receipt of same **refund purchase price**. Could you ask more?

The Mann's is the only machine which has a self-governing feed, producing uniform pressure against the knife, whether the bone be hard or soft. You set the machine to suit your strength, and it never requires more power than you set it for.

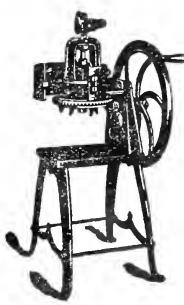
Mann No. 5



Fresh Cut
BONE
Is the
FOOD
that makes
HENS LAY

Interesting
Booklet
"BUGS and
WORMS"
FREE

Mann's No. 9

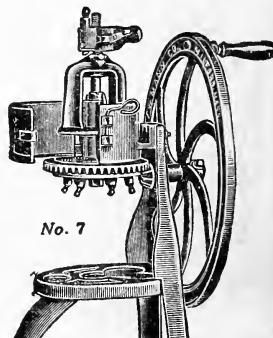
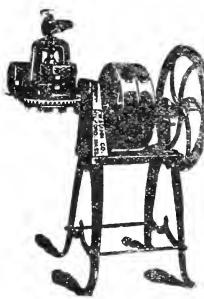


Price List of Mann's Bone Cutters

New Styles

	Price	Wgt
No. 5C (with crank handle).....	\$8.00	30
No. 5B (with balance wheel).....	11.00	55
No. 5BM (B. W. and iron stand).....	14.50	80
No. 7 (B. W. and iron stand).....	16.50	107
No. 7½ (hand or power).....	20.00	150
No. 9 (B. W. and iron stand).....	27.50	163
No. 11 (power machine).....	35.00	215
No. 12 (power machine).....	38.50	260
No. 15 (power machine).....	72.50	420

Mann's No. 11



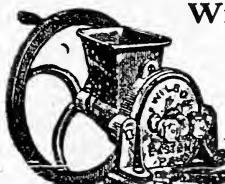
MANN'S HANDSOME 40-PAGE CATALOG

Is fully illustrated and tells all about the different style Green Bone Cutters, Clover Cutters, Corn Shellers, Grit Smashers, etc., and contains much valuable information. Free on request.

Mann's Clover Cutter

Made entirely of iron and steel; cannot warp or shrink. It cuts any kind of hay or clover, either dry or green, and more rapidly than any other mace. Each revolution of the balance wheel produces twelve cuts. Do not buy a clover cutter until you have seen Mann's.

Price, \$10.50; mounted on iron stand, \$12.00



Wilson's Mill No. 1

Wilson Dry Bone Mill No. 1

This is a practical mill, grinding all kinds of shell, crockery, grit, burnt or dry bone, feed, etc. Instantly adjusted to grind coarse or fine. Every poultry keeper should have one of these mills. You will find them very convenient and serviceable. Weight, 33 pounds. Diameter of hand wheel, 20 inches.

Price, \$5.50

Wilson Mill No. O

A family grist mill in itself. Especially made for grinding flour, corn meal, spices, coffee, etc., for table use. It can also be adjusted for cracking grain. Capacity and size same as No. 1; hopper round. Weight, 30 pounds.

Price, \$5.50

Mann's Corn Sheller

Best low-priced corn sheller made. A profitable tool if you have corn to shell. Weight 10 lbs.

Price, \$3.00



Mann's
Clover
Cutter
Mounted

Mann's Cast Iron Mortar

For breaking glass, crockery-ware, oyster shells or other dry substances for poultry. Weight, 33 pounds; height, 12 inches; 9 inches square; pestle 4 feet long.

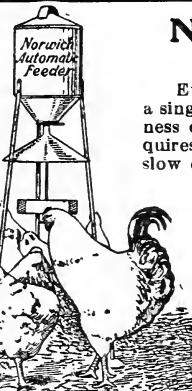
Price, \$3.50

Bond's Grit Machine

Will break rock, limestone, ore, crockery, glass, dry clam and oyster shells, etc. A boy of seven can work it. Drop the material in the top and work lever up and down quickly, but not with great pressure. Do not use green bone or wet oyster shells, but dry them. Weight, 25 pounds.

Price, \$4.00

Chicks 6
weeks old
will oper-
ate this
feeder.

**Norwich Automatic Exerciser and Feeder**

Every kernel of grain put into this feeder will go to your flock, not a single one will be wasted. Absolutely bird and rat proof. Rain or dampness cannot affect it. Saves its cost in 90 days by preventing waste, requires no attention except filling of hopper when empty. Adjustable for slow or fast feeding.

This is the most successful and practical automatic feeder ever invented; the slightest "peck" on the bait bar scattering the grain in the litter in a wide circle, where all the fowls have ample opportunity to "scratch for it," affording just the right amount of exercise. **Keeps them busy all the time.**

Guaranteed to improve the flock, increase the egg production and save feed. Descriptive pamphlet on request.

MADE OF HEAVY GALVANIZED IRON.

No. 1—8 quarts.....	Each \$3.00
No. 2—14 quarts.....	3.75
No. 3—20 quarts.....	4.75

CALMADE Straight Line Poultry Fence

The only fence made with less than one inch bottom mesh. Will not hang the chicks and chickens cannot climb it.

SPACING—Bottom, $\frac{1}{8}$; next, $\frac{1}{4}$; next two, $\frac{1}{2}$; next six, 1 inch; next eight, $2\frac{1}{4}$ inches, making 29 inches of close mesh; the same in all widths. The top spacing is $3\frac{1}{2}$ inches.

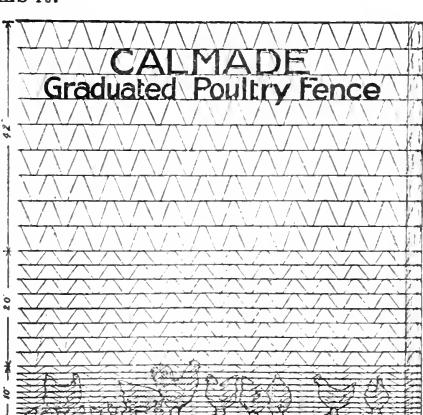
Construction.

Straight line continuous weave. Line wires pull perfectly straight in stretching, taking up all slack in mesh wires, thus tightening same at the joints, permitting no slip or play at the intersection.

Will not unravel when cut. Requires no top or bottom rail. Will not sag. Rolls out like a carpet. Built like a field fence. Is quickly and easily erected, perfectly uniform in weave. Conforms to uneven ground. Same width in center as at posts. Heavy selvage top and bottom. Costs no more than Ordinary Netting.

PRICES--Full 10-Rod Rolls.

Width	No. 20	No. 19
	Per roll	Per roll
36 inches.....	\$3.50	\$4.10
48 inches.....	4.35	4.90
60 inches.....	5.10	5.65
72 inches.....	5.85	6.30



The above numbers indicate size of line wire, the mesh wire in all cases is one size lighter.



Miscellaneous Poultry Supplies

"Diamond" Sanitary Self-Feeding Boxes

Made of heavy galvanized iron; soon pays for itself in preventing waste of feed. For keeping grit, shells and charcoal before the fowls at all times.

Price, 3 compartments, weight $2\frac{1}{2}$ lbs., 75c. Large size, 2 compartments, weight 3 lbs., each, \$1.00.

Mann's Swinging Feed Tray

For water or feed. Fowls cannot scratch dirt into it, or feed out of it, nor roost on it; yet will not tip over or spill the food out.

Price, 18-inch, weight, $5\frac{1}{2}$ lbs., \$1.25; 27-inch, weight, $6\frac{1}{2}$ lbs., \$1.50; 36-inch, weight, 8 lbs., \$1.85.

Diamond Galvanized Wall Fountain

(See cut.)

Something new and serviceable. To be hung on the wall or against an upright post, at any height. The patented construction protects the water from becoming soiled. Anyone can easily see the convenience of these. One gallon size, weight 2 lbs.

Each, 70c
Two gallon size, weight $2\frac{1}{2}$ lbs.
Each, 90c

Sanitary Stone Fountain

These are strong and well finished; made in two pieces and easily washed and kept clean. They probably keep the water cooler than the galvanized fountains, but are heavier to handle and more liable to break.

Price, $\frac{1}{2}$ gal., 35c; 1 gal., 50c; 2 gal., 75c.

Stone Fountains

Decidedly convenient for young chicks. (See cut.)

Weight, 1 lb.

Price, 40c

Wire-Covered Feed Trough

Decidedly convenient for young chicks. (See cut.)

Weight, 1 lb.

Price, 40c

Wire-Covered Feeding Trough

Decidedly convenient for young chicks. (See cut.)

Weight, 1 lb.

Price, 40c

THE "ALL-RITE"

Sanitary Fountain and Feeder.

For water, grit, chick food or grain, using ordinary Mason jar, either quart or half gallon. Has galvanized pan that is quickly detachable. The best fountain of this type.

PRICE, one size only, without jar, weight, $\frac{1}{2}$ lb. each.

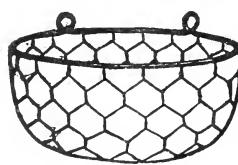
Each, 20c; doz., \$2.00



Wire Hen's Nests

(See cut.)

Strongly made; very durable; fasten to the wall; no harbor for vermin. Weight 10 ozs. each. Price, each, 20c; dozen, \$2.00.

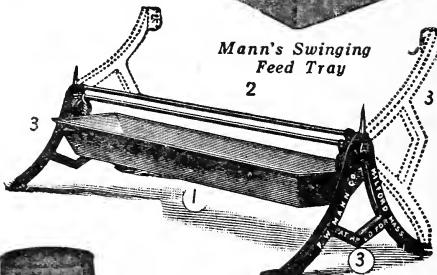


Wire Nest



Mann's Swinging Feed Tray

2



Galvanized Fountains

Galvanized Iron Drinking Fountains

Our Galvanized Iron Drinking Fountains embody every good feature of the down-to-date drinking fountains, and, we believe, are the best in use. They are easily filled, cleaned and kept clean. If placed in the shade in Summer time, the water will keep nearly as cool as in an earthenware vessel. They are much lighter than the earthenware fountains and are safer to ship. A dozen can be put in compact package for shipment, as they nest together. We offer them at a very low price.

Small size, weight, $\frac{3}{4}$ lb. Each, 35c; 6, \$1.95
Medium size, weight, 1 lb. Each, 45c; 6, \$2.50
Large size, weight, $1\frac{1}{2}$ lbs. Each, 55c; 6, \$3.00
Extra Pans 15c to 25c

China Nest Eggs

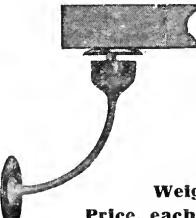
Best grade Opal Eggs. Weight, per doz., $\frac{3}{4}$ lb.

Price, 3 for 10c; 12 for 35c

Lime Nest Egg

These are superior to the China egg as they are not so cold, which is better for the hens. They are also indestructible. Weight per doz., 2 lbs.

Price, each, 5c; doz., 40c; postpaid, each, 10c



LICE-PROOF PERCH SUPPORT

A cast iron Roost Support that is strong and durable. The oil cup effectually prevents lice from passing between the roosts and the house. Use Lee's Lice Killer or kerosene.

Weight, each, $\frac{1}{2}$ pound.
Price, each, 20c; pair, 35c; doz., \$2.00

Miscellaneous Poultry Supplies

Leg Bands For Poultry and Pigeons (See Cuts)

Every chicken must have a leg band on before it can be entered in a poultry show. In ordering Leg Bands, be sure to state size wanted, or breed of fowls bands are to be used on, and number wanted for males or females.



Eclipse



Double Clinch



Smith Sealed



Leader Band

DOUBLE CLINCH.—A new band, very safe; no exposed corners, ends or loops; has double fasteners.

Prices, postpaid, 12 for 15c; 25 for 30c; 50 for 50c; 100 for 75c.

SMITH SEALED.—Of aluminum and so constructed that by simply crushing a soft rivet they are sealed on the bird's leg, and must be destroyed to be removed. See cut.

Prices, postpaid, 12 for 25c; 25 for 50c; 60 for \$1.00; 100 for \$1.25.

PIGEON BANDS.—We can supply the Double Clinch and Open Band—you simply clasp it on—at price of Double Clinch.

SMITH SEALED—Pigeon.—Doz., 30c; 100, \$1.50



Colored "LEADER" Leg Band.—Adjustable, will fit any fowl, the colors are of celluloid in metal protecting band. White, Pink, Red, Blue, Yellow, Green and Brown. Can be furnished numbered 1 to 100 with the words, First, Second, Third, Fourth or Champion.

Price, 12, 35c; 25, 60c; 50, \$1.10; 100, \$2.00; 250, \$4.50; 500, \$8.50; 1000, \$16.50

Smith Sealing Tool

Made especially for sealing the Smith leg bands. Plain Jaw, 50c; lettered jaw, any letter, 75c. postage, 10c.

Reliable Poultry Marker

For marking the web between the toes. One of the best and handiest markers. Postpaid, 35c

Model Poultry Punch

A well made, serviceable tool. Postpaid, 40c

Poultry Killing Knife

French, best and most popular.

Price, postpaid, 50c

Pettey's Poultry Punch

Latest, most convenient Poultry Punch; can be put on a key ring or used for a watch charm. Will not clog. Thoroughly practical.

Price, postpaid, 25c



THERMOMETERS

For Incubators—Tested

Fig. 6.—P. S. Co.'s triangle shape; metal back.....	\$0.75
Fig. 10.—P. S. Co.'s Straight Metal back.....	.60
Fig. 14.—Triangle shape; best incubator Thermometer made. Certified correct; worth the additional cost.....	1.00
Fig. 7.—Mandy Lee style.....	.75

For Brooders

Fig. 2.—P. S. Co.'s; for any style brooder... .50

For General Use

Cabinet, No. 5.—8-inch wood back, nice finish .40
Fig. 4.—Household, 7-inch, black enamel, tin case..... .25

Fig. 1.—P. S. Co.'s Self-Registering—A necessity for greenhouse and poultrymen. Will accurately register the extremes of heat and cold.

Price, postpaid, securely packed, \$4.00

Fig. 3.—Hotbed Thermometer, for plunging in the bed to know when the temperature is right for planting. This knowledge may save much loss and delay.

Each, postpaid, \$1.50

The Wilder Illuminated Thermometer

Instantly indicates the temperature without opening doors. So simple that a child can attach it to incubator.

Everyone who owns an incubator knows how hard it is to read the thermometer correctly through the glass doors, and it is not always advisable to open them. But with the "Wilder" you simply press the button and the temperature is plainly indicated. Wilder thermometers are fully guaranteed.

Price, each, \$2.75

Mandy Lee Egg Tester

This Egg Tester is made to use on a lamp and will fit the ordinary No. 2 burner. The same tester is furnished with all Lee Incubators.

Price, 50c, postpaid

Breeder's Magic Egg Tester

The Manufacturers Challenge—

Any person in the world to hatch one egg the Magic Egg Tester registers unhatchable before incubation. No light. No electricity. No expense and lasts a life-time. Shows the best and strongest hatchable eggs before incubation.

Don't set another egg until you have the Breeders' Magic Egg Tester. Price, each, \$2.00



Miscellaneous Poultry Supplies—Continued



Kant-Krack Egg Box is specially designed for the safe delivery of valuable eggs for hatching and is a great favorite with poultrymen.

Made of heavy corrugated paper. Only a few seconds' work to set the box up, pack it with eggs, and address it. These boxes are light but very strong, being firmly braced, and will stand the weight of several hundred pounds without crushing.

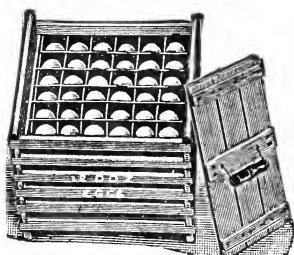
No	Size	Weight	Each	Six	Dozen
3	15-Egg	1 lb.	\$0.20	\$1.00	\$1.65
4	30-Egg	1 1/2 lb.	.30	1.50	2.75
5	50-Egg	2 lb.	.40	2.15	4.00

Ideal Paper Egg Boxes

Intended for use in delivering eggs to private families. If you have a "select" egg trade, you should use this box. Nicely printed with a blank space for your name and address. Printed to order in two M. lots at no extra charge. They ship "knocked down" at very low rates. Weight 12 lbs. per 100.

PRICES: 1-dozen size, 20c dozen; \$1.20 per 100; \$11.00 per 1000. Sample box by mail, 5c

"Humpty Dumpty"



The "Humpty Dumpty"

PRICE: Each, 50c; per 6, \$2.90; doz., \$5.50

Egg Cases

30-dozen case with pasteboard fillers..... \$0.40
Pasteboard fillers for 30-dozen case. Wt. 3 lbs. .20
Pasteboard fillers, per case (for 12 30-dozen cases) 1.80

Sefton Egg Boxes
This package is so constructed that each egg is separated by a thickness of corrugated board and the entire contents are surrounded by a double wall of air-cushioned corrugated board. Fold flat for shipment.

LIVE CHICK BOXES

25 chick size, ea., 20c; doz., \$2.25; 50 chick size, ea., 30c; doz., \$3.00; 100 chick size, ea., 50c; doz., \$5.00.

Our Live Chicken Boxes for delivering day-old chicks are safe, economical, convenient.

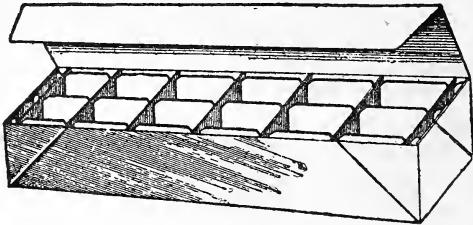
Hydro Safety Lamps

Oakes.—Made especially for incubators and brooders; has a water jacket and is perfectly safe.

No. 1—Small Size, 1/4-Inch wick, weight 1/4 lb. Each, \$1.00

No. 2—Medium size, 1-Inch wick, weight 1 lb. Each, \$1.50

No. 3—Large size, 1 1/2-Inch wick, weight 1 1/4 lbs. Each, \$1.75



Suwanee Egg Carton

Saves Breakage, Folds Flat

When filled fits into a regular egg case, 3 dozen in a layer.

Every man in the egg trade should use the Suwanee Egg Carton.

A light but strong carton, holding one dozen eggs, and built to fit a regular egg-packer. Throw away your "fillers." Use this carton; packs three to a layer in an ordinary egg case, and is always ready for delivery. **Saves handling—saves breakage.** Built with double walls. Ask for sample. Weight with fillers, 3 ozs. each.

Price: Doz., 25c; 100, \$1.40; 1000, \$12.50

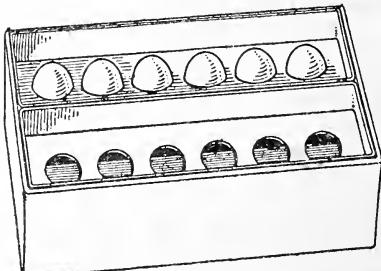
P. S. C. Co.'s Shipping Coops

All wood, neat, very light, but strong. Poultry raisers selling poultry at fancy prices should always use these coops.

	Weight	Nailed	K. D.
No. 1.	10x12x18	10 1/2 lbs.	Each, 35c; 6, \$1.90
No. 2.	10x24x20	11 1/2 lbs.	Each, 50c; 6, 2.75
No. 3.	20x24x20	18 1/2 lbs.	[Each, 60c; 6, 3.35

Non-Busto Egg Carrier

Holds the egg in suspension so it cannot touch the top or bottom. Prevents breakage and is very simple in principle. Easily and quickly set up and filled. A safe, serviceable package at a very low price.



1-doz. size, 80c doz.; 2-doz. size, \$1.35 doz.; 3-doz. size, \$1.75 doz.; 4-doz. size, \$2.25 doz.; 5-doz. size, \$2.75 doz.

Caponizing Instruments

The demand for capons exceeds the supply, the price per pound averaging more than twice as much as that paid for ordinary roosters.

P. S. CO.'s STANDARD, the best low priced set. **Price, postpaid, \$2.00**

WIGMORE, a first-class outfit with book of instructions. **Price, postpaid, \$2.50**

REMEDIES, LICE KILLERS, ETC.

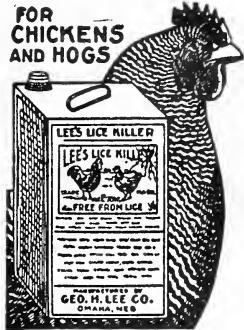
Lee's Foods and Remedies for Stock and Poultry

THE GENUINE MERIT of the LEE FOODS and REMEDIES and their recognized superiority is their best guarantee, and you can depend upon them absolutely to do all that is claimed for them. The valuable booklets of the Lee Company are free to poultry keepers and stockmen, and contain reliable and complete information to date on poultry and stock feeding problems. **We mail them on request.**

Lee's Lice Killer—For 20 Years the Standard

LIQUID.—Destroys either by vapor or contact. No trouble to apply; just paint the roosts or wall at night. Rids poultry and houses of all vermin: is prepared exclusively for this purpose, and there is nothing just as good.

PRICE: Qt., 35c; $\frac{1}{2}$ gal., 60c; 1 gal., \$1.00;
5 gal., \$4.00.



GERMOZONE

Regular use of Germozone insures BETTER health; BETTER chicks; BETTER layers; and the RIGHT kind of BREDERS.

Use it for Bowel Complaint in little chicks; for Cholera, Roup, and other diseases among the older fowls; and regularly TWICE-A-WEEK for ALL fowls. It prevents contagion, tones the system, and insures BETTER health for the entire flock.

PRICES.

12-oz. bottle Liquid. 50c
Pkg., postpaid;
Tablets 50c

LEE'S EGG MAKER is not a tonic nor a medicine, but a meat food of great value. It will make hens lay, chicks grow, and keep them all in a healthy, vigorous condition.

2-lb. pkg., 25c; 6-lb. pkg., 50c; 25-lb. pall, \$2.50

LEE'S HEADLICE OINTMENT.—For little chicks.

Large box, 15c

LEE'S INSECT DESTROYER.—(Powder)
1 lb. can, 25c

LEE'S WHITE DIARRHOEA REMEDY.—The best medicine for this dangerous disease of little chicks.

Wt., 2 lbs.; 12-oz. bottle, 50c

LEE'S HOG REMEDY.—Cures all diseases of hogs and keeps them healthy.

Pkg., 75c; 25-lb. pall, \$2.50

Mailing weight, 9 lbs.

LEE'S CARBOLIC SHEEP DIP.—For lice, ticks, mange, itch or scab, on cattle, sheep and hogs. Qt., 50c; $\frac{1}{2}$ gal., 75c; gal., \$1.25; 5 gals., \$5.00
Mailing wts., qt., 3 lbs.; $\frac{1}{2}$ gal., 5 lbs.; gal., 10 lbs.

LEE'S WORM POWDER.—For horses, cattle, sheep and hogs. Safe and sure in result.

Pkg., 25c, weight, 1 $\frac{1}{4}$ lbs.

LEE'S BEST CONDITIONER STOCK FOOD.—Promotes good health, digestion and assimilation. 25 pkgs., wt., 3 lbs.; 50c pkgs., wt., 8 lbs.; 25-lb. palls, \$2.50.

LEE'S PEERLESS GOPHER KILLER.—For killing gophers, squirrels, etc. Sure death.

Quart can, wt., 3 lbs., 75c

LEE'S PEERLESS BUG KILLER.

Wt., pdk., 2 lbs.; 12-oz. bottle, 25c

LEE'S HICKORY SMOKE EXTRACT.—Hickory Smoke Extract applied to meat preserves it indefinitely, imparting the delicious flavor that is only otherwise obtained by smoking with green hickory.

12-oz. bottle, wt., pdk., 2 lbs., 35c; 32-oz. bottle, 75c.

LEE'S FLYO-CURO.—We sell thousands of cans of this fly spray every season, and it gives good satisfaction. Qt., 35c; $\frac{1}{2}$ gal., 60c; gal., \$1.00
Mailing wts., qt., 3 lbs.; $\frac{1}{2}$ gal., 5 lbs.; gal., 10 lbs.

EGG-O-HATCH and EGG-O-LATUM

DON'T GET THE TWO NAMES MIXED

Egg-o-hatch is a dry powder. It is mixed with water and the resulting liquid is applied to eggs two or three times during the 21 days of incubation. It is a liquid that does three things—supplies oxygen for the growing chick; absorbs carbon dioxide given off; makes more brittle and porous the shell of the egg.

Price, 50c, postpaid. WILL treat 600 eggs.

Egg-o-latum is a white cerate. Rubbed over the shell of the egg it seals every pore so no air, moisture, odors, or germs can get in. Preserves the egg in all its original freshness. The application of Egg-o-latum is easily and quickly done. A dozen a minute and they will keep a year. Fresh eggs must be used, unfertilized ones are best. One pkg. treats 50 doz. eggs. **Price, 50c, postpaid.**



Thoroughbred Poultry and Eggs for Setting

Send us your orders for Poultry or Eggs, **any breed or strain**, and secure the advantage of expert, critical selection, that guarantees full value for your money. We do not depend on any one breeder, but can give you the pick of the prize-winning strains at right prices.

OUR SPECIAL POULTRY SUPPLY CATALOG lists everything necessary for the profitable production of poultry and contains valuable information on poultry diseases, care and treatment. We want everyone interested in poultry to have this catalog and the "Mandy Lee" Books. Free.

Portland Seed Co.'s "Diamond Quality" Poultry Foods



WE manufacture our **Diamond Poultry Foods** from choice, clean, wholesome material, and they are the result of a lifetime of careful study and experiments by a thoroughly practical expert, who is a recognized authority on feeding.

Diamond Chick Food

A Properly Balanced Ration that will make chicks grow and keep them healthy

For Young Turkeys, Pheasants and all young fowls **DIAMOND CHICK FOOD** is unexcelled. The safest, most dependable and satisfactory food.

 Our trade mark on every original package is your protection. Demand it of your dealer, as there are many dangerous substitutes.

The Making of Diamond Chick Food

The select grains that are used in the preparation of Diamond Chick Food are cut by a special process screened to a uniform size and run through a Fanning Mill to remove the dust and meal, which is the fatal element in most Chick Foods. After this process the ingredients are carefully weighed and mixed in correct proportions. No guess work.

By using Diamond Chick Food you are giving the chicks just what Nature intended they should have, a food composed of grains (cracked), small seeds, bone, dried sweet meat (to take the place of insects and bugs), charcoal, etc., mixed in the right proportions to produce a quick and profitable growth without loss. It's so convenient, so handy, always ready for use, and you can raise so many more chicks by feeding it that it is the **cheapest food you can buy**. A trial is all we ask.

Ask for descriptive pamphlet—Directions for feeding in each sack or package.

PRICE: 5 lbs., 25c; 12 lbs., 50c; 25 lbs., 95c; 50 lbs., \$1.70; 100 lbs., \$3.25

Portland Seed Co.'s Diamond Egg Food or Laying Mash

Makes hens lay when eggs are high; keeps poultry healthy.

Unequalled for feeding young chicks.

A complete ground food to be fed dry or wet. Starts hens laying and keeps them at it. Hastens moulting. Puts poultry in prime condition. Makes young fowls grow fast. **No Drugs—No Stimulants**—but a rich, wholesome, nourishing food for growing fowls and hens, encouraging rapid growth and increasing egg production. Can be fed dry or as a mash and is the most successful combination of egg producing elements. Put up in 100lb. Bags. Full Weight.

PRICE: Per lb., 5c; 25 lbs., 70c; 50 lbs., \$1.25; per 100 lb. sk., \$2.30.

Diamond Scratch Food

The most successful "up-to-now" ready-mixed complete food. Makes hens sing, and singing hens lay. A perfect "working ration" for fowls. Grains, Beef, Bone and Charcoal carefully prepared in the correct proportion; a veritable "hen's delight," and a great egg-producer.

PRICE: Per lb., 5c; per 100 lbs., \$2.70

High Grade Meat Scraps

DIAMOND BRAND, SPECIAL.—A new meat product, perfectly prepared, fine ground and clean. The highest feeding value yet produced.

PRICE: 4 lbs., 25c; 50 lbs., \$2.25; 100 lbs., \$4.00

STEEL CUT.—Granulated, clean and free from dust, hide, hair, etc. There is no waste; can be fed like grain if preferred. Every poultry keeper knows the value of this food.

PRICE: 5 lbs., 25c; 50 lbs., \$2.00; 100 lbs., \$3.75

Fish Scrap

Made from sweet, clean Halibut. A high grade poultry food, rich in protein (65%) relished by fowls—furnishing a clean, healthy meat ration. No chemicals or acids used in its manufacture, and it is free from meal and dust.

PRICE: Per lb., 5c; 100 lbs., \$3.65

BOOKS ON POULTRY

See Page 64



Look for the trade mark—be sure it's "Diamond"

Diamond Growing Food

Our special formula for promoting a rapid, healthy growth, and should be fed after the third or fourth week; nothing else needed; will quickly produce large, plump "Broilers."

PRICE: Per lb., 5c; 50 lbs., \$1.60; 100 lbs., \$3.00

Diamond Pigeon Food

This special combination for pigeons is unequalled for squab raising, feeding for exhibition or as a regular working ration.

PRICE: Per lb., 5c; 100 lbs., \$2.85

Fish Meal

A fine-ground, pure, sweet fish meal, containing 65% protein—feed as you would meat meal; a rich, wholesome food for poultry.

PRICE: Per lb., 5c; 100 lbs., \$3.65

 Prices subject to Change without Notice—no Premiums allowed on Poultry Foods



Portland Seed Co.'s Diamond Poultry Foods—Con'd.

High Grade Meat Meal

A highly concentrated food. Being cooked meat, dried and ground. Very rich in protein. It should be mixed with the soft food. No hides or tankage in our meat meal, but, as its name implies, meat, cooked, dried and ground; unexcelled for egg-production.

DIAMOND GRADE.

1 lb., 10c; 10 lbs., 50c; 100 lbs., \$4.00

STANDARD.—Good grade. 100 lbs., \$3.00

Grit

Every poultry raiser should keep a supply of grit in each pen. Made in two sizes, chick and hen size. We always send hen size unless otherwise ordered.

DIAMOND CRYSTAL.

PRICE: 5 lbs., 10c; 100 lbs., 90c

Charcoal

Our Charcoal is guaranteed, prepared especially for poultry; no dust; a good thing for bowel trouble, sour crop and indigestion; a health preserver.

PRICES: 1 lb., 10c; 10 lbs., 50c; 100 lbs., \$3.00

Granulated Bone

Our "Diamond Brand" is made from selected hard white raw bones, and of a superior quality; an indispensable food for laying hens.

DIAMOND. PRICE: 10 lbs., 45c; 100 lbs., \$2.85

STANDARD. PRICE: 100 lbs., \$2.70

Blood Meal

The most highly concentrated egg-producer on the market. To be fed in soft food. Unexcelled as a food for forcing growth of chicks or as an egg food.

DIAMOND. PRICE: 1 lb., 10c; 10 lbs., 50c;

50 lbs., \$2.00; 100 lbs., \$3.85

Diamond Poultry Remedies

DIAMOND Poultry Dip.—Certain eradicator of insects and disease on all animals. Insures healthy condition. A general disinfectant and cleanser. Kills cockroaches, water bugs, ants and all insects. Cures gapes, bumble foot, chicken pox, scaly legs, etc. Keeps your yards and houses sanitary. **One gallon makes 100 gallons.**

PRICES: Qts., 50c; doz., \$5.00; half gal., 85c; gal., \$1.50; doz., \$14.50. Malling wts., qt., 3 lbs.; $\frac{1}{2}$ gal., 5 lbs.; gal., 10 lbs.

DIAMOND CHOLERA CURE.—Comes in powder form. Soluble in water. **Postpaid, 50c**

DIAMOND ROUP CURE.—Comes in powder form. **Postpaid, 50c and \$1.00**

DIAMOND MICROZONE.—Will cure Roup, Cholera, Swelled Head, Sore Eyes, and most all Chicken Diseases. Every poultry keeper should have a bottle of this on hand. Liquid, cannot be mailed. Wt., pkd. 3 lbs. **Price per bottle, 50c**

Oyster Shells, Crushed

We offer nice clean stock, free from dust and waste. These should be within reach of your hens at all times. In two sizes: coarse and fine.

DIAMOND. PRICE: 5 lbs., 10c; 100 lbs., \$1.15

STANDARD POULTRY SHELL.—A very good grade of mixed sea shell—sold by some dealers as oyster shell—but is not so good and has more waste.

100 lbs., 85c

Bird Seed

Not for planting. Special Prices in Quantity.

P. S. C. o.'s Best Mixed. Per lb., postpaid, 20c

Canary, best re-cleaned. Per lb., postpaid, 20c

Hemp. Per lb., postpaid, 20c

Millet. Per lb., postpaid, 20c

Rape. Per lb., postpaid, 20c

Cuttle Bone, large bone..... Postpaid, 2 for 5c

Tobacco Dust

For use in dust baths and nests. A cheap and effective exterminator of lice.

PRICE: 1 lb., 10c; postpaid, 20c; 100 lbs., \$5.75

Alfalfa Meal

The best substitute for green food for Winter feeding; helps keep the egg basket full; mixed with the soft feed is good for large or small chicks; endorsed by leading experts.

PRICE: 1 lb., 5c; 10 lbs., 30c; 25 lbs., 60c; 50 lbs., 90c; 100 lbs., \$1.55

Poultry Pepper

A good tonic and invigorator; ground.

PRICE: 1 lb., 25c; 5 lbs., \$1.00

Lambert's Lice Remedies

DEATH TO LICE.

5 oz., 10c; 15 oz., 25c; 48 oz., 50c; 100 oz., \$1.00

DEATH TO LICE--SPECIAL.

Dissolve in kerosene.

4 oz., 10c; 16 oz., 25c

DEATH TO LICE OINTMENT.

For lice on chicks, scaly shanks on fowls of any kind.

1 oz., 10c. postpaid; 3 oz., 25c. postpaid

CARBOLINEUM

AVENARIUS CARBOLINEUM.—For preserving any kind of timber above or below ground.

Qt. can, 40c; wt. 4 lbs.; gal., \$1.50; 5 gals., \$6.00.

KEEP POSTED — Get a New "STANDARD OF PERFECTION"

See Page 64

Collapsible Poultry Coops

These are the neatest, lightest and strongest coops for shipping poultry that we have ever seen. They are well made, and will last for years. Easily cleaned and stored. They are up-to-date coops, and make a good impression. They are a mighty good investment for any poultry raiser. Coops are made in three sizes. Order a sample coop.

No. 1 Coop. For 12 to 24 chickens, size 36x24x12. weight, 23 pounds.

Price, \$2.00

No. 3 Coop. For 24 to 36 chickens, size 48x30x14, weight, 33 pounds.

Price, \$2.50

No. 4 Coop. For turkeys and geese; will carry 250 pounds of weight.

Price, \$3.00



Coop Collapsed



Coop Set Up

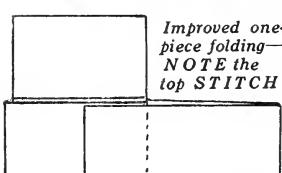
"SUCCESS" Automatic Trap Nest—releases the hen. See Poultry Supply Catalog

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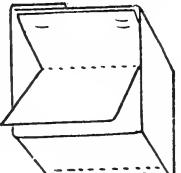
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BERRY BOXES AND CRATES



Improved one-piece folding—
NOTE the top STITCH

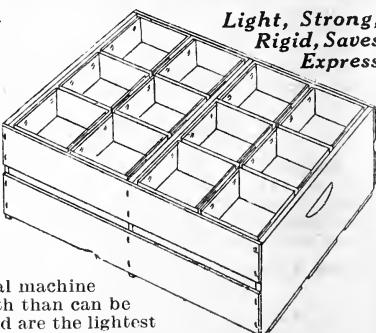


TOP STITCHING the one-piece bottom makes the box open up perfectly. No loss from misfits and breakage as with the old style, and the bottom never drops out. *Compare this new box with any box on the market. Prices on request.*

THIS NEW STYLE STAPLED CRATE is made up on a special machine that centers the long staples uniformly, giving greater strength than can be obtained in a nailed crate. They never warp or pull apart and are the lightest crate on the market, making a great saving to shippers. *Prices and complete information on request.*

New-Machine Stapled Crate

Will Not Warp or Pull Apart
Write for Prices



Light, Strong, Rigid, Saves Express

Prices Right, Deliveries Prompt

Let us supply you the splendid line of the *Pacific Fruit Package Company*

PRINTED BY JAMES, KERNS & ABBOTT CO., PORTLAND, OREGON

Parcel Post Rates

PARCEL POST RATES are based on **DISTRICTS** and **ZONES**. **THE DISTRICT** includes the office where mailed and the rural routes therefrom.

A DISTRICT RATE OF 5 CENTS for the **first pound** and **1 cent** for **each additional** two pounds or fraction thereof up to **50 pounds** (the district weight limit) is charged between points in this district.

THE 1ST ZONE covers a radius of **50 miles** from the point of mailing; the rates are **5c for the first pound** and **1 cent for each additional pound** or fraction thereof, up to the **limit of 50 pounds**.

THE 2ND ZONE covers a radius of **150 miles**, and the rate is **5c for the 1st pound** and **1 cent** for each additional pound or fraction thereof; **weight limit of 50 pounds**.

A WEIGHT LIMIT OF 20 POUNDS APPLIES TO THE 3rd, 4th, 5th, 6th, 7th and 8th zones.

ZONE RATES increase with the distance—see table.

WHEN YOU ORDER FROM PORTLAND look for the Zone that corresponds to the distance you are away. Then note where the weight of your package is marked on the table of rates, on the same line under your ZONE will be shown the amount of postage to be added when ordering. We have catalogued the weight of most items mailable by parcel post, and by the aid of the table here shown you can always figure your postage.

SIZE AND WEIGHT.

A Parcel Post package may weigh from 4 ounces to 50 pounds for the first and second zones—with a 20 pound weight limit for third to eighth zones, and must not exceed in size 84 inches in length and girth combined.

Four ounces or less will be charged for at 1c per ounce or fraction thereof, except on Books, Seeds, Plants, Bulbs, etc., which are 1c for 2 ozs. up to 8 ozs. for any distance.

SEEDS, BOOKS, ETC.—

Seeds, Plants and Books over 8 ozs. and other 4th Class matter over 4 ozs. are charged at pound rates, a fraction being charged as a full pound.

WEIGHT	1st Zone		2nd Zone		3rd Zone		4th Zone		5th Zone		6th Zone		7th Zone		8th Zone		
	Local rate	Zone 50 miles	Zone 50 miles	to 150 miles	to 300 miles	Zone 600 miles	to 1000 miles	Zone 1400 miles	to 1800 miles								
1 pound																	
2 pounds																	
3 pounds	Local																
4 pounds	Zone																
5 pounds	Rate 5c	First and Second Zone															
6 pounds	for first																
7 pounds	pound	Rate 5 cents															
8 pounds	1c for	for the															
9 pounds	each ad-	first pound															
10 pounds	ditional	and															
11 pounds	two	1 cent for															
12 pounds	pounds	each															
13 pounds	up to	additional															
14 pounds	the	pound															
15 pounds	limit,	up to the															
16 pounds	50	weight limit,															
17 pounds	pounds	50 pounds															
18 pounds																	
19 pounds																	
20 pounds																	

The 8th zone rate applies to **ALASKA, HAWAII and the PHILIPPINES** with 20 lb. wt. limit—**To MEXICO** with 11 lbs.; **CUBA**, 4 lbs. 6 oz.; **PANAMA**, 4 lbs. 6 oz. **Postage to Canada** on 4th class pkgs. of over 4 oz. and **NOT EXCEEDING 4 lbs. 6 ozs.**, go at 8th zone rate.

Our FREE PREMIUMS Your Own Selections

As an expression of our good will and appreciation of your business we offer these premiums. If you wish to take advantage of these premium offers, be sure to make your selections when sending in your orders; otherwise they cannot be sent. They are given only with cash orders, at catalog prices.

With a \$2.50 order Your choice of Vegetable or Flower Seeds in packages or ounces to the value of 25c, or any 25c Lily, Dahlia, Canna or Gladiola Bulb.

With a \$5.00 order Double the \$2.50 Premium, or any 25c book, or 25c to apply on any book we list, or your choice of any 25c package of Stock or Poultry Foods or Seed Potatoes, or Flowering Bulbs to value of 50c.

NOTE.—The amount allowed on premiums cannot be deducted from the price, but is allowed over the amount of the order.

IF YOU SELECT PREMIUMS LISTED ABOVE YOU ARE NOT ENTITLED TO OUR SPECIAL DISCOUNT OFFER BELOW ON SEEDS IN PACKETS AND OUNCES.

Special Rates on Seeds in Packets or Ounces—Postpaid

25 cents Worth of Seeds FREE

with every \$1.00 order for Seeds in Packets and Ounces. Remember, in packets and ounces only.

\$1.25 for \$1.00, \$2.50 for \$2.00, and so on. This does not apply on quantities over one ounce, or where any other premium is taken.

We pay one cent (in seeds) per name for good addresses. See back of Order Sheet.

Portland Seed Co. 180-186 Front St.
Portland, Oregon

NO PREMIUMS on GRASSES, GRAINS or FOODS, which are subject to market changes

"Diamond Quality"
Northern Grown

SEED POTATOES



Select Strains
SNOW, WHITE ROSE,
PRODUCER, EARLY ROSE,
WHITE PRIZETAKER, SCOTCH ROSE,
AM. WONDER, EARLY OHIO,
BURBANK



TRADE

MARK